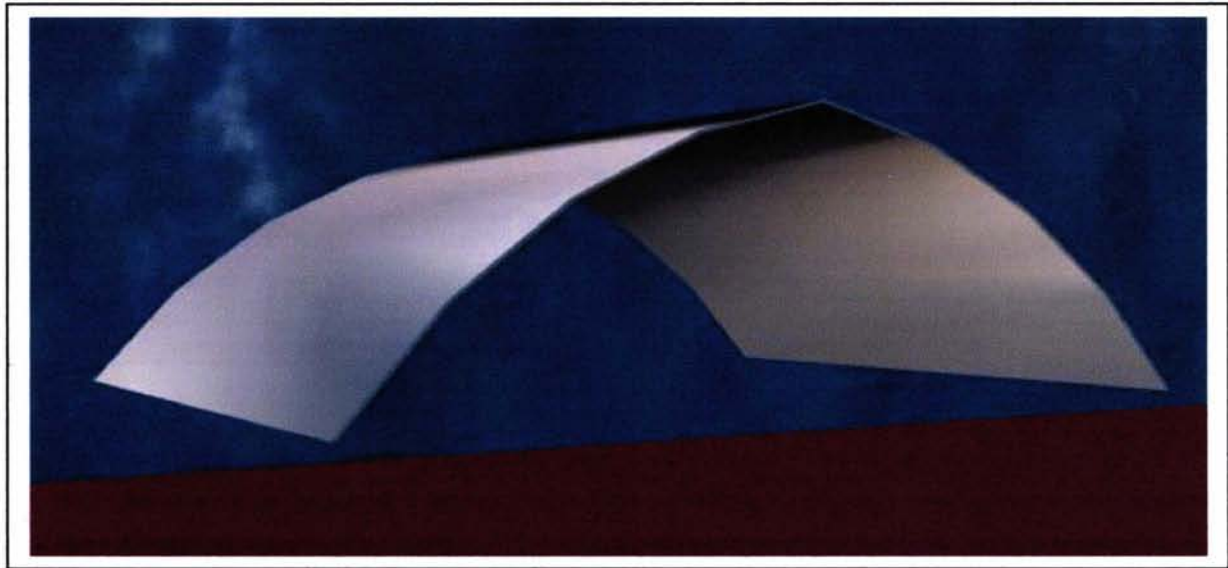


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“PROPUESTA PARA OBTENER LOS ESFUERZOS PREDOMINANTES DE UN CILINDRO LARGO”

**UNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO.
FACULTAD DE ARQUITECTURA,
CENTRO DE INVESTIGACIONES Y ESTUDIOS DE POSGRADO.
CAMPUS QUERÉTARO.**

PRESENTA:
ING. GILBERTO FLORES GONZALEZ.
DICIEMBRE 2004



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TRABAJO TERMINAL
TEMA:

**“PROPUESTA PARA OBTENER LOS ESFUERZOS
PREDOMINANTES DE UN CILINDRO LARGO”**

TRABAJO TERMINAL DE
ESPECIALIZACIÓN DE CUBIERTAS LIGERAS.

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A ESTEFANIA DE LA LUZ
MI ESPOSA, POR SU APOYO

A MIS HIJAS:
ARQ ESTEFANIA DE LA LUZ
DRA ROSAURA MARIANA Y SU ESPOSO

A MIS PADRES
DANIEL Y ROSAURA

A MIS MAESTROS

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INTRODUCCION

Los cascarones de concreto armado, cubiertas ligeras dependientes de la forma, se dejaron de construir, por tres razones principales:

- 1.- Lo costoso de la cimbra,
- 2.- El aumento de costo de la mano de obra,
- 3.- Y en menor orden, lo laborioso de su análisis estructural.

1.- Lo costoso de la cimbra se puede substituir, empleando aceros y concretos de alta resistencia, soldadura de arco, paneles de poliuretano, y algunos otros materiales como el ferrocemento y el suelocemento, aplicados en sistemas híbridos autoportantes.

2.- El aumento desmedido de la mano de obra se debe evitar usando métodos constructivos industrializados.

3.- Y lo laborioso del análisis estructural preciso, ahora con la ayuda de la computadora ha dejado de serlo.

Lo que seguirá siendo insustituible es la forma, por ser el resultado del comportamiento de la física.

Por tanto; trabajemos con la insustituible forma, empleando materiales modernos, en sistemas constructivos industrializados, diseñados estructuralmente mediante computadora, para proponer cubiertas eficaces y económicas.

Por ser el análisis estructural la parte teórica del proceso, con el presente trabajo pretendo proponer un procedimiento simple de integración numérica, para que con el método de la viga, y la ayuda de una hoja de cálculo como "Excel", obtengamos los esfuerzos predominantes a los que esta sujeta una cubierta larga de simple curvatura, para lo cual usaré como ejemplo un cilindro circular apuntado.

HIPOTESIS:

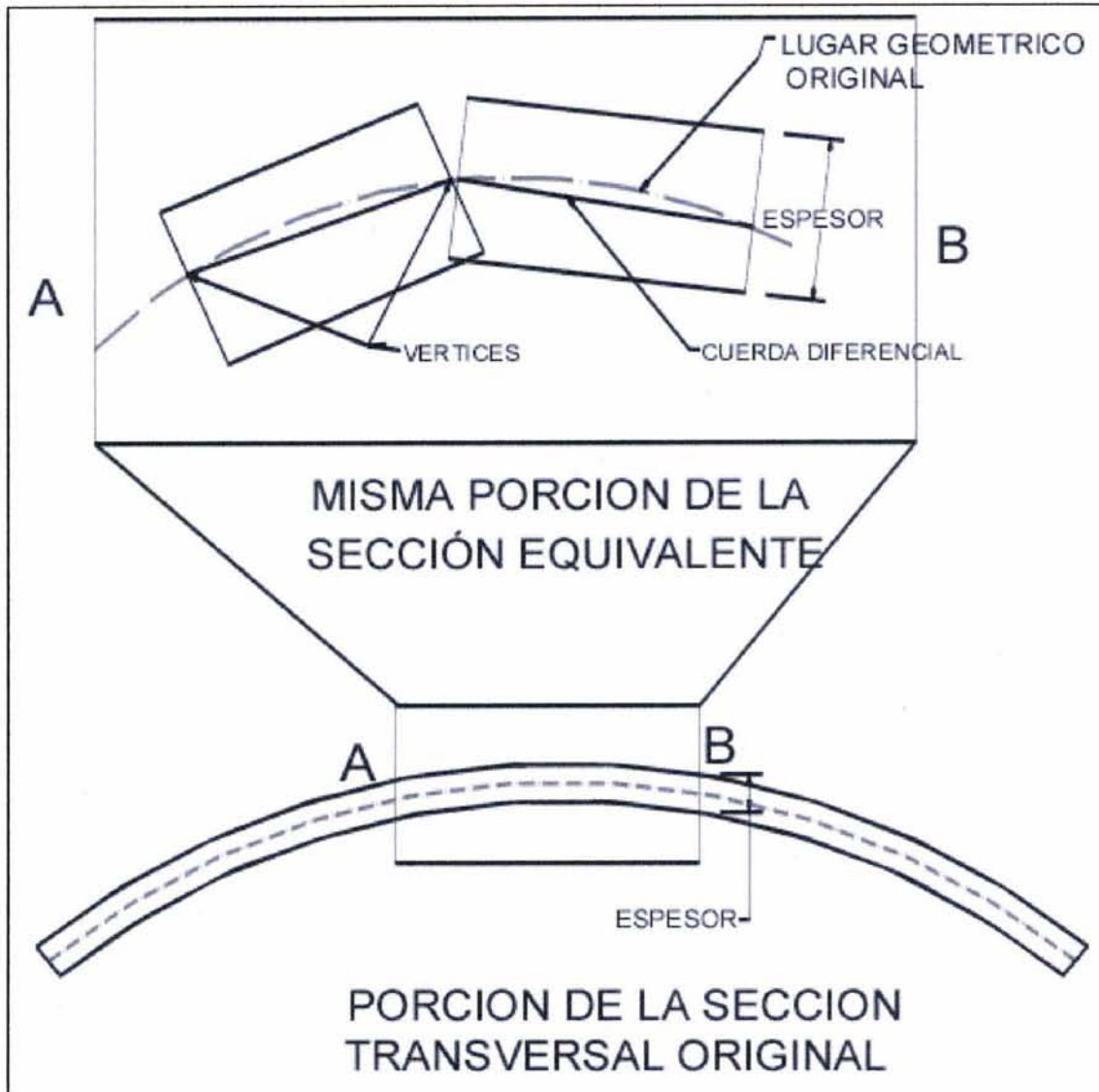
La propuesta consiste en aplicar en las fórmulas de la teoría de la flexión de Navier; los efectos internos que produce la flexión, (fuerzas cortantes y momentos flexionantes), sobre cualquier cubierta cilíndrica o prismática, para determinar la distribución de los esfuerzos predominantes a los que está sujeta.



La hipótesis inicial en la que se apoya el método de la viga, es la de Bernoulli, que supone que cualquier sección transversal permanece plana y normal al eje longitudinal de la viga, ya deformado por efecto de la flexión, y que la sección sólo sufre un giro con respecto a la vertical.

Para la determinación de las fuerzas cortantes y momentos flexionantes, se aplica el método de Newmar, difundido por el doctor Fernando López Carmona.

El artificio para conocer las propiedades geométricas de la sección transversal; consiste en sustituirla, (cualquiera que sea su forma) por una sección equivalente.



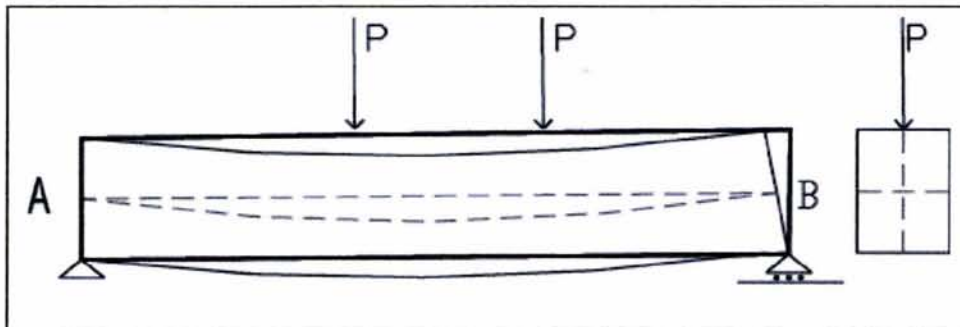
La sección transversal equivalente se obtiene; conservando el espesor propuesto para la cubierta como una dimensión, y transformando el lugar geométrico de la directriz o eje de la sección transversal, en un polígono de cuerdas diferenciales. Cuyas longitudes serán la otra dimensión.

Soporte teórico:

Una vez escogido el método de la viga, como referencia de análisis para desarrollar ésta propuesta, creo conveniente darle validez demostrando la teoría que lo soporta.

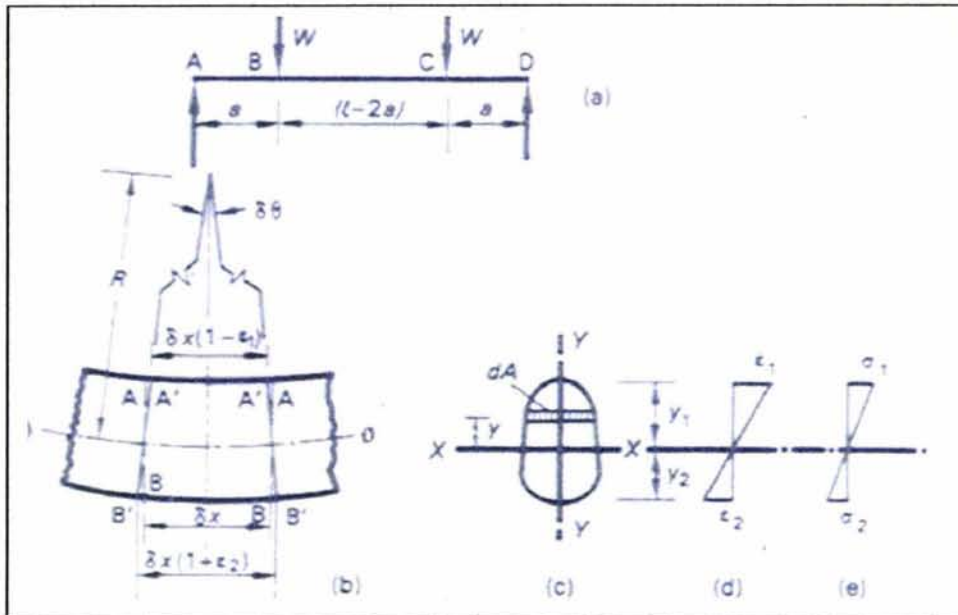
Demostración de la teoría de la flexión, fórmula para determinar la distribución de los esfuerzos normales debidos a la flexión, en la sección transversal de vigas.

Consideremos la viga recta horizontal ABCD simplemente apoyada en sus extremos, y que su sección transversal tiene un eje de simetría vertical. Este eje y el eje longitudinal determinan el plano de las cargas verticales P. Además sabemos que la viga trabaja a flexión simple.



Bajo la acción de las cargas "P" la viga se deforma con la concavidad hacia arriba, y debido a ese comportamiento, las fibras superiores se acortan, comprimiéndose y las inferiores se alargan sufriendo tracción, fenómeno que produce rotación de las secciones transversales al mantenerse normales al eje deformado. Hipótesis de Bernoulli, que aplicó Navier en su teoría de la flexión.

Estas deformaciones son máximas en los extremos de la sección y van disminuyendo hasta llegar a cero en el eje neutro, (O-O). R es el radio de curvatura de la superficie neutra, consideremos que dicha superficie se localiza a una distancia (y_1) a partir de la superficie superior de la viga, y a una distancia (y_2) de la inferior.



La viga ABCD, cuando se carga como se indica, el momento flexionante es constante entre B y C, conservándose además las secciones transversales planas antes y después de la flexión, así el elemento diferencial (dx) que esta limitado por los planos AB antes de la flexión, terminará limitado por los planos A'B' después de la flexión..

Sea (ϵ_1) la deformación unitaria en la parte superior de la viga, y (ϵ_2) la deformación unitaria en la parte inferior de la viga. Entonces :

$$\delta x = R * \delta \theta$$

En la superficie superior,

$$\begin{aligned} (R-y_1) &= \delta x - \delta x * \epsilon_1 \\ &= \delta x * (1-\epsilon_1) \end{aligned}$$

$$R * \delta \theta * (1- y_1/R) = R * \delta \theta * (1-\epsilon_1)$$

Por lo tanto

$$\epsilon_1 = y_1/R$$

Análogamente, consideremos la parte inferior de la viga,

$$\varepsilon_2 = y_2/R$$

Evidentemente, en general;

$$\varepsilon = y/R$$

Ahora, el esfuerzo se relaciona con la deformación unitaria por medio del módulo de Young.

$$\sigma = \varepsilon * E$$

Por lo tanto

$$\sigma = E * y/R$$

Con referencia a la figura, la fuerza sobre el elemento dA situado a una distancia (y) a partir del eje neutro es

$$F = \sigma * da$$

Si no hay fuerza normal aplicada en la viga, entonces, para el equilibrio longitudinal, la fuerza total sobre la sección transversal en la dirección x debe ser cero, es decir,

$$F = 0 = \int \sigma * da$$

Y substituyendo el valor de σ resulta

$$(E/R) * \int y * da = 0$$

Por lo tanto

$$\int y * da = 0$$

La ecuación anterior establece que el primer momento o momento estático de cualquier sección transversal con respecto al eje neutro es cero, y por consiguiente el eje neutro pasa a través de su centroide, como se comprueba al final de la columna 13 de la tabla 1

El momento resistente interno de la sección, que es igual al momento flexionante externo, se obtiene tomando momentos de las fuerzas con respecto al eje neutro, siendo la fuerza

$$F = \sigma * da$$

Su brazo de palanca o distancia al eje neutro es “y”

Y el momento M

$$M = \int y * da$$

Ahora por el módulo de Young

$$\sigma = E*y/R$$

$$M = (E / R)* \int y^2*dA$$

Siendo el momento de inercia o segundo momento igual a:

$$I_{xx} = \int y^2* da$$

Por tanto,

$$M / I_{xx} = E / R = \sigma / y$$

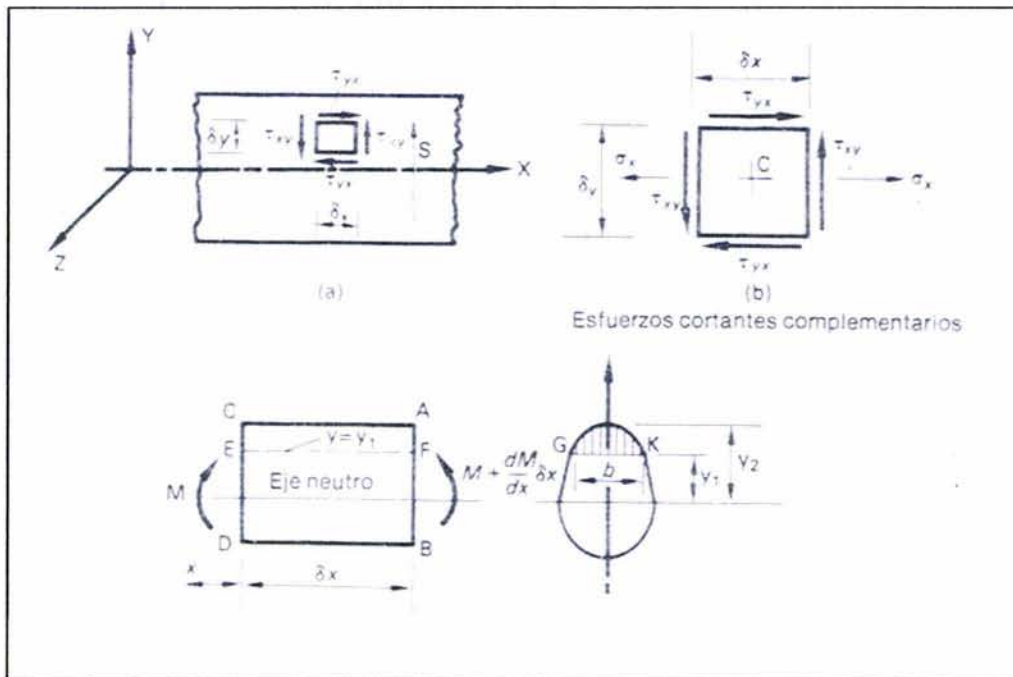
Que es la teoría de la flexión, de donde despejando al esfuerzo de las fibras mas alejadas del eje neutro, tanto arriba como abajo de él, tenemos;

$$\text{Arriba; } \sigma_c = - M * y_1 / I_{xx} \quad (\text{compresión})$$

$$\text{Abajo; } \sigma_t = M * y_2 / I_{xx} \quad (\text{tracción})$$

Demostración de la fórmula del cortante, para determinar la distribución de dichos esfuerzos debidos a la flexión, en la sección transversal de vigas:

Por lo general, el momento flexionante de una viga sujeta a flexión, va acompañado por una fuerza cortante, por lo que ahora demostraré la teoría para determinar la distribución de dichos esfuerzos producidos por esa fuerza, en la sección de la viga.



Considérese un elemento diferencial (δx), y supóngase que la viga tiene una sección transversal, donde el ancho es función de y , consideremos el equilibrio de la parte sombreada de la viga. Las fuerzas longitudinales en la dirección x , son;

En la cara CD,

$$F_c = \int \tau * A = (M/I) * \int b * y * \delta y$$

Y en la cara AB,

$$F_a = \int ((M + \delta M * \delta x / \delta x) / I) * (b * y * \delta dy)$$

$$V = \int \delta M / \delta x$$

La fuerza neta o fuerza cortante horizontal debe ser igual a la diferencia de F_a menos F_c

$$F_n = ((\delta M * \delta_{xx} / \delta x) / I) * \int b * y * \delta y$$

$$F_n = (V * \delta_{xx} / I) * \int b * y * \delta y$$

Como el esfuerzo es igual a la fuerza entre el área,

$$\tau = F / A$$

En este caso el área es,

$$A = b * \delta y,$$

Y el primer momento o momento estático es,

$$S = \int y * \delta A$$

El esfuerzo cortante se obtiene,

$$\tau = (V * S) / (b * I) \quad \text{fórmula 2}$$

Siendo;

τ el esfuerzo cortante a determinar

V = a la fuerza cortante en la sección deseada, debida a la flexión

S = el primer momento con respecto al eje neutro, acumulado desde la parte superior de la sección transversal hasta el punto en donde se quiera determinar el esfuerzo.

B = ancho o espesor de la sección

I = momento de inercia de la sección con respecto al eje neutro, en el sentido de las cargas.

En la práctica, este procedimiento sirve para diseñar cualquier cubierta, sujeta a cualquier sistema de cargas, la única condición para poder aplicarlo es que la sección transversal sea constante a lo largo de la cubierta.

El ejercicio tiene la finalidad de señalar el procedimiento analítico de integración numérica para determinar los esfuerzos a los que esta sujeta una cubierta cilíndrica o prismática.

Solución :

El proceso se desarrollará en cuatro pasos principales que serían;

- 1.- Conocer las propiedades geométricas de su sección transversal, (cualquiera que sea la forma de su directriz; puede ser una sola curva, varias curvas combinadas, curvas y rectas combinadas, o varias rectas combinadas).
- 2.- Determinar los diagramas de momentos flexionantes y de fuerzas cortante de la viga hipotética.
- 3.- Mediante la teoría de la flexión, determinar en varias secciones transversales la distribución de los esfuerzos predominantes, (normales y cortantes).
- 4.- Obtener las curvas de igual magnitud de los esfuerzos predominantes.

Propongo como ejemplo para este ejercicio un cilindro circular apuntado, sujeto a una carga uniformemente repartida.

Procedimiento de análisis:

Paso 1.- Se determina la geometría o estereotomía del cilindro; partiendo de la ecuación de su directriz, podemos determinar de su sección transversal, que es constante, las siguientes propiedades geométricas:

- a.- Las coordenadas de todos sus puntos.

- b.- El área de la sección transversal.
- c.- El momento estático, o módulo de la sección en los dos sentidos (vertical y horizontal)
- d.- Sus distancias centroidales
- e.- El momento de inercia (en ambos sentidos)

Paso 2.- El cilindro o cubierta se considera como una viga hipotética sujeta al sistema de cargas deseado, y se analiza para determinar:

- a.- El diagrama de fuerzas cortante.
- b.- El diagrama de momentos flexionantes.

Paso 3.- Se determina la distribución de los esfuerzos predominantes utilizando las siguientes fórmulas:

- a.- Con la ley de la escuadría o teoría de la flexión;

$$\sigma = (M_i * Y_{ni}) / I_{XX} \quad \text{fórmula 1}$$

determinamos la distribución de los esfuerzos normales de tracción y compresión de la sección, producidos por la flexión en la viga.

- b.- Con la fórmula del cortante;

$$\tau = (V_i * S) / (I_{XX} * b) \quad \text{fórmula 2}$$

se obtiene la distribución de los esfuerzos cortantes en la sección deseada.

Siendo:

σ = Esfuerzo normal

τ = Esfuerzo cortante.

M_i = Momento flexionante en la sección.

Y_{ni} = Distancia centroidal (referida al eje neutro)

I_{XX} = Momento de inercia de la sección en el sentido vertical.

V_i = Fuerza cortante en la sección.

S = Momento estático o Primer momento de la sección en sentido vertical.

b = Espesor o ancho de la sección

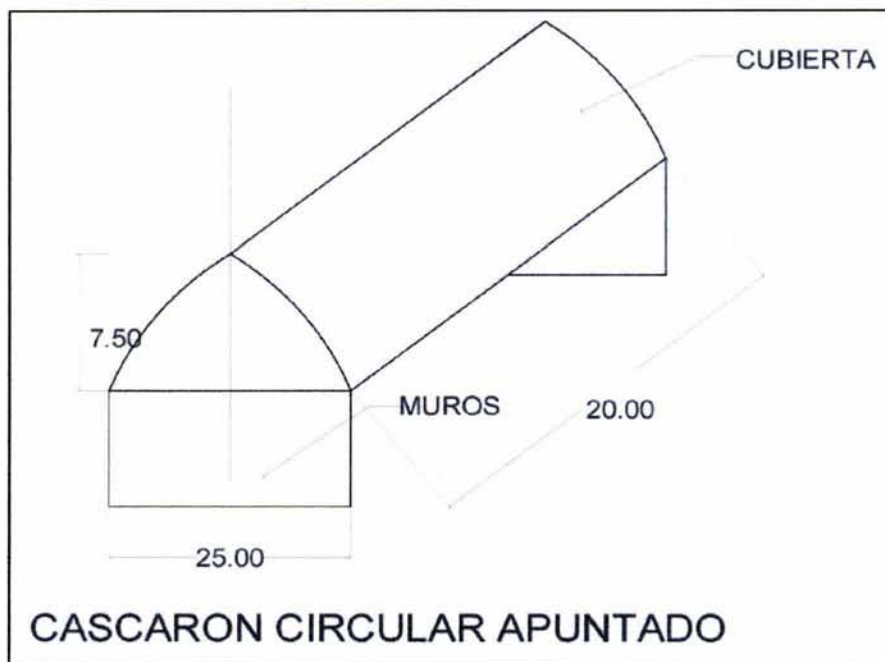
Paso 4.- Ya conocidas las distribuciones de los esfuerzos normales y cortantes de las secciones transversales de nuestra cubierta considerada como viga, gráficamente uniremos todos los puntos que registren igual magnitud, obteniendo con ello las líneas isobáricas de esfuerzos cortantes y de esfuerzos normales en nuestra cubierta.

Conociendo la magnitud y posición de los esfuerzos, por tratarse de un cilindro de concreto armado, se diseña con ellos el espesor de la cubierta, y la localización y dosificación del acero longitudinal.

Paso 1

Geometría :

La geometría de una estructura no está completa si no se determinan las secciones transversales de todos sus componentes, y no se pueden diseñar tales secciones sin un análisis estructural que permita determinar los esfuerzos a los que estará sujeta toda la estructura.



El caso que me ocupa es un cascarón cilíndrico de sección circular apuntado, el análisis debe ser tal que nos proporcione la magnitud y posición de los esfuerzos que produce la flexión sobre la cascaro.

El análisis se puede hacer gráfico o analítico.

Procedimiento gráfico:

Se tabula y dibuja la ecuación de la directriz que es el eje de la sección transversal, y por medio de “Autocad” podemos determinar sus propiedades geométricas siguientes:

- Area de la sección transversal.
- Primer momento o momento estático
- Posición de eje (plano neutro)
- Ordenadas centroidales
- Momentos de inercia

Los valores de las propiedades geométricas se aplican a las fórmulas 1 y 2 para conocer las distribuciones de los esfuerzos normales y cortantes de todas las secciones transversales.

Procedimiento analítico :

Por ser la sección transversal del cilindro simétrica con respecto al eje vertical y el cilindro simétrico con respecto al centro de su longitud; conviene trabajar solo con una rama de la sección.

Así trabajaremos con la cuarta parte de la cubierta, determinando en ella sus propiedades geométricas y por el efecto de doble simetría, conoceremos su geometría completa.

El procedimiento analítico para conocer la geometría de la sección transversal, fue calculado mediante integración numérica, con la hoja de cálculo “Excel” en la tabla 1, que a continuación explico:

Explicación de la tabla 1 :

Coordenadas : conociendo la ecuación de la sección transversal, en éste caso dos arcos circulares apuntados, se tabula variando sus ordenadas “y” a cada centímetro. Cabe aclarar que para la obtención de las propiedades geométricas de la sección transversal, se puede trabajar con un sistema auxiliar de coordenadas, colocando su origen en donde nos convenga.

La ecuación de la circunferencia de radio de 19.50 mts, de donde se tomará un sector de arco, para que sea una rama de nuestra sección transversal constante, es:

$$x^2 + y^2 = 380.25$$

Lugar geométrico que acomodaremos en simetría para formar una sección circular apuntada, con flecha de 7.5 mts.

Aunque la sección transversal del cilindro es constante, trabajaremos con la sección correspondiente al apoyo, por eso en la columna 3, las $z = 0$

La columna 1 corresponde a las “x” siendo la distancia horizontal al eje central vertical o de simetría de la sección, y la columna 2; corresponde a las “y” o sea la elevación con respecto al piso.

Longitud diferencial de la cubierta: por medio del teorema de Pitágoras, calculamos la longitud de las cuerdas o de las distancias diferenciales entre cada dos puntos contiguos del lugar geométrico, y las consignamos en la columna 4.

$$Li = \sqrt{((x_1 - x_2)^2 + (y_1 - y_2)^2)}$$

Longitud transversal de la cubierta: con lo anterior tenemos que nuestro lugar geométrico original se transformó, en un polígono abierto con vértices que se localizan verticalmente a cada centímetro (variación que dimos originalmente a las “y”).

La suma de las longitudes de las cuerdas nos da aproximadamente la longitud transversal de cada rama de la cubierta, columna 5

$$L = \sum (L_i)$$

Area diferencial: si suponemos que la cascara tiene un espesor de 0.05 mts, cada cuerda o lado del polígono tiene un área debido a ese espesor, la columna 10 la contiene y se obtiene multiplicando la longitud de cada cuerda por el espesor de la cubierta que es constante.

$$A_i = L_i * e$$

Espesor; $e = 0.05$ mts

$$\text{Area total transversal } A = \sum A_i$$

Momento estático diferencial, o primer momento diferencial: en la columna 11; se calcula el momento estático de cada área diferencial con respecto al piso, o a sea con respecto al plano $Y = 0$, y se obtiene de multiplicar el área diferencial en cuestión por la ordenada de su centroide con respecto al piso, (la ordenada centroidal diferencial es la distancia promedio de las ordenadas de los dos vértices contiguos de la cuerda). Al final de la columna se obtiene el momento estático de la rama, consistente en la suma de los momentos estáticos diferenciales.

Ordenada centroidal diferencial	$Y_i = (y_1 + y_2) / 2$
Momento estático diferencial	$S_{oi} = A_i * Z_i$
Momento estático de la sección	$S_o = \sum S_{oi}$

Ordenada centroidal de la sección: si dividimos el valor del momento estático (S_o), entre el valor del área transversal (A), obtenemos el valor de la ordenada del plano centroidal, o sea la distancia que hay entre el plano de eje neutro y el plano $Y=0$, (piso de la estructura), al final de la columna 11 se obtiene el valor de la ordenada $Y_{en} = 4.564$ mts.

$$Y_{en} = S_o / A$$

Ordenada al eje neutro : si restamos al valor de la ordenada y_i (ordenada centroidal de cada área diferencial), el valor de la ordenada centroidal de la sección o ordenada del eje neutro (Y_{en}), obtenemos el valor de la ordenada al eje neutro de cada área diferencial. Consignadas en columna 12

$$Y_{ni} = Y_i - Y_{cn}$$

Primer momento diferencial de la sección o momento estático diferencial al eje neutro: se obtiene multiplicando el valor de cada área diferencial (A_i), por el valor de su ordenada al eje neutro (Y_{ni}), calculo que se registro en la columna 13, en la columna 14 se acumula el momento estático desde la cúspide ($Y = 7.50$) hasta el apoyo ($Y = 0$).

$$\text{Momento estático diferencial } S_{ci} = A_i * Y_{ni}$$

$$\text{Momento estático de la sección } S = \sum S_{ci} = 0$$

Momento de inercia diferencial: el momento de inercia de un área con relación a un eje localizado fuera de su centroide, es el producto de su misma área por el cuadrado de la distancia de su centroide al eje de referencia, mas el momento de inercia de esa misma área con respecto a su propio eje centroidal. $I_{Xi} = ((x_2-x_1)*(e)^3)/12$

$$\text{Momento de inercia diferencial } I_{XXi} = A_i * Y_{ni} * Y_{ni} + I_{Xi}$$

$$\text{Momento de inercia diferencial } I_{YYi} = A_i * X_{ni} * X_{ni} + I_{Yi}$$

En las columnas 15 y 16 se calculan los momentos de inercia diferenciales con respecto a los ejes xx y yy . Si sumamos todos los momentos de inercia diferenciales obtenemos el momento de inercia de la sección transversal del cilindro.

Con todo lo anterior se determinaron numéricamente todas las propiedades geométricas de una rama de la sección transversal del cilindro, por simetría conoceremos las de la otra rama, y por ser cilindro, (sección transversal constante en toda su longitud), conocemos las propiedades geométricas de todo el cilindro.

En las tablas 3 y 5, aplicaremos estas propiedades geométricas, para conocer la magnitud y posición de los esfuerzos a los que está sujeta la cubierta.

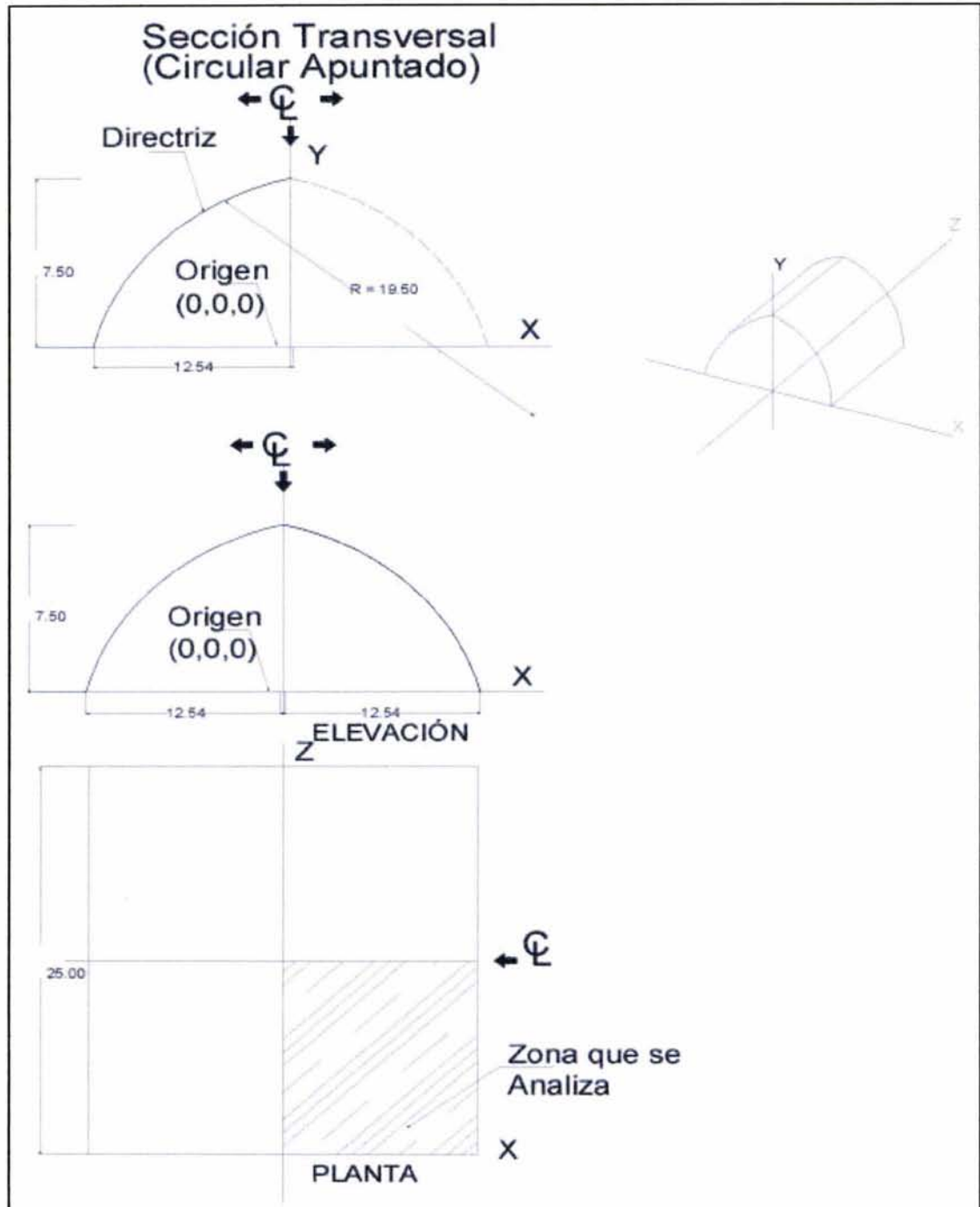


TABLA 1
ESTEREOTOMIA

PROPIEDADES GEOMETRICAS DE LA SECCION TRASVERSAL

CILINDRO CIRCULAR APUNTADO

ECUACION UNA RAMA DE LA SECCION CIRCULAR APUNTADA: $X^2+Y^2=380.25$
 COORDENADAS DEL CENTRO DE LA CIRCUNFERENCIA:
 ABSISA G = 0.000
 ORDENADA H = -3.000

COORDENADAS DE LA CLAVE (CUSPIDE) DE LA SECCION:
 ABSISA X = 0.000
 ORDENADA Y = 7.500

RADIO R = 19.500
 ESPESOR E = 0.050

PUNTO	COLUMNA 1	COLUMNA 2	COLUMNA 3	COLUMNA 4	COLUMNA 5	COLUMNA 6	COLUMNA 7	COLUMNA 8	COLUMNA 9	COLUMNA 10	COLUMNA 11	COLUMNA 12	COLUMNA 13	COLUMNA 14	COLUMNA 15	COLUMNA 16
	COORDENADAS			LONGITUD DIFERENCIAL CUBIERTA	LONGITUD CUBIERTA	TANGENTE DEL ANGULO HORIZONTAL	ANGULO HORIZONTAL EN GRADOS	SENO ANGULO HORIZONTAL	COSENO ANGULO HORIZONTAL	AREA DIFERENCIAL	MOMENTO ESTATICO AL ARRANQUE DEL ARCO	ORDENA AL EJE NEUTRO M	MOMENTO ESTATICO AL EJE NEUTRO	MOMENTO ESTATICO ACUMULADO	MOMENTO INERCIA YY	MOMENTO INERCIA ZZ
P UNIDAD	X m	Y m	Z m	LI m	SUMA LI m		GRADOS			Ai m ²	Sol m ³	Zni m	Sci m ³	Si m ³	Iiyy m ⁴	Iizz m ⁴
1	0.000	7.500	0.000	0.051	0.051	0.157	8.904	0.155	0.988	0.003	0.019	2.940	0.007	0.007	0.022	0.143
2	0.050	7.490	0.000	0.063	0.114	0.160	9.092	0.158	0.987	0.003	0.024	2.930	0.009	0.017	0.027	0.177
3	0.112	7.480	0.000	0.062	0.176	0.163	9.276	0.161	0.987	0.003	0.023	2.920	0.009	0.026	0.026	0.173
4	0.174	7.470	0.000	0.061	0.237	0.167	9.456	0.164	0.986	0.003	0.023	2.910	0.009	0.035	0.026	0.170
5	0.234	7.460	0.000	0.060	0.297	0.170	9.633	0.167	0.986	0.003	0.022	2.900	0.009	0.043	0.025	0.166
6	0.293	7.450	0.000	0.059	0.356	0.173	9.807	0.170	0.985	0.003	0.022	2.890	0.008	0.052	0.025	0.163
7	0.351	7.440	0.000	0.058	0.413	0.176	9.978	0.173	0.985	0.003	0.021	2.880	0.008	0.060	0.024	0.160
8	0.407	7.430	0.000	0.057	0.470	0.179	10.147	0.176	0.984	0.003	0.021	2.870	0.008	0.068	0.023	0.156
9	0.463	7.420	0.000	0.056	0.526	0.182	10.312	0.179	0.984	0.003	0.021	2.860	0.008	0.076	0.023	0.154
10	0.518	7.410	0.000	0.055	0.581	0.185	10.475	0.182	0.983	0.003	0.020	2.850	0.008	0.084	0.022	0.151
11	0.572	7.400	0.000	0.054	0.635	0.188	10.635	0.185	0.983	0.003	0.020	2.840	0.008	0.092	0.022	0.148
12	0.626	7.390	0.000	0.053	0.689	0.191	10.793	0.187	0.982	0.003	0.020	2.830	0.008	0.099	0.021	0.146
13	0.678	7.380	0.000	0.053	0.741	0.193	10.949	0.190	0.982	0.003	0.019	2.820	0.007	0.107	0.021	0.143
14	0.730	7.370	0.000	0.052	0.793	0.196	11.103	0.193	0.981	0.003	0.019	2.810	0.007	0.114	0.020	0.141
15	0.781	7.360	0.000	0.051	0.844	0.199	11.254	0.195	0.981	0.003	0.019	2.800	0.007	0.121	0.020	0.139
16	0.831	7.350	0.000	0.051	0.895	0.202	11.404	0.198	0.980	0.003	0.019	2.790	0.007	0.128	0.020	0.136
17	0.880	7.340	0.000	0.050	0.945	0.204	11.552	0.200	0.980	0.002	0.018	2.780	0.007	0.135	0.019	0.134
18	0.929	7.330	0.000	0.049	0.994	0.207	11.698	0.203	0.979	0.002	0.018	2.770	0.007	0.142	0.019	0.132
19	0.978	7.320	0.000	0.049	1.043	0.210	11.842	0.205	0.979	0.002	0.018	2.760	0.007	0.149	0.019	0.130
20	1.025	7.310	0.000	0.048	1.091	0.212	11.984	0.208	0.978	0.002	0.018	2.750	0.007	0.155	0.018	0.129
21	1.072	7.300	0.000	0.048	1.139	0.215	12.125	0.210	0.978	0.002	0.017	2.740	0.007	0.162	0.018	0.127
22	1.119	7.290	0.000	0.047	1.186	0.217	12.264	0.212	0.977	0.002	0.017	2.730	0.006	0.168	0.018	0.125
23	1.165	7.280	0.000	0.047	1.232	0.220	12.401	0.215	0.977	0.002	0.017	2.720	0.006	0.175	0.017	0.123
24	1.211	7.270	0.000	0.046	1.278	0.222	12.537	0.217	0.976	0.002	0.017	2.710	0.006	0.181	0.017	0.122
25	1.255	7.260	0.000	0.046	1.324	0.225	12.672	0.219	0.976	0.002	0.017	2.700	0.006	0.187	0.017	0.120
26	1.300	7.250	0.000	0.045	1.369	0.227	12.805	0.222	0.975	0.002	0.016	2.690	0.006	0.193	0.016	0.118
27	1.344	7.240	0.000	0.045	1.414	0.230	12.937	0.224	0.975	0.002	0.016	2.680	0.006	0.199	0.016	0.117
28	1.387	7.230	0.000	0.044	1.458	0.232	13.068	0.226	0.974	0.002	0.016	2.670	0.006	0.205	0.016	0.115
29	1.431	7.220	0.000	0.044	1.502	0.234	13.197	0.228	0.974	0.002	0.016	2.660	0.006	0.211	0.015	0.114
30	1.473	7.210	0.000	0.043	1.545	0.237	13.325	0.230	0.973	0.002	0.016	2.650	0.006	0.217	0.015	0.113
31	1.515	7.200	0.000	0.043	1.588	0.239	13.452	0.233	0.973	0.002	0.015	2.640	0.006	0.222	0.015	0.111
32	1.557	7.190	0.000	0.043	1.631	0.242	13.578	0.235	0.972	0.002	0.015	2.630	0.006	0.228	0.015	0.110
33	1.599	7.180	0.000	0.042	1.673	0.244	13.702	0.237	0.972	0.002	0.015	2.620	0.006	0.233	0.014	0.109
34	1.640	7.170	0.000	0.042	1.715	0.246	13.826	0.239	0.971	0.002	0.015	2.610	0.006	0.239	0.014	0.107
35	1.680	7.160	0.000	0.041	1.756	0.248	13.948	0.241	0.971	0.002	0.015	2.600	0.005	0.244	0.014	0.106
36	1.721	7.150	0.000	0.041	1.797	0.251	14.070	0.243	0.970	0.002	0.015	2.590	0.005	0.250	0.014	0.105
37	1.760	7.140	0.000	0.041	1.838	0.253	14.190	0.245	0.969	0.002	0.015	2.580	0.005	0.255	0.014	0.104
38	1.800	7.130	0.000	0.040	1.879	0.255	14.309	0.247	0.969	0.002	0.014	2.570	0.005	0.260	0.013	0.103
39	1.839	7.120	0.000	0.040	1.919	0.257	14.428	0.249	0.968	0.002	0.014	2.560	0.005	0.265	0.013	0.102
40	1.878	7.110	0.000	0.040	1.959	0.259	14.545	0.251	0.968	0.002	0.014	2.550	0.005	0.270	0.013	0.101
41	1.917	7.100	0.000	0.040	1.998	0.262	14.662	0.253	0.967	0.002	0.014	2.540	0.005	0.275	0.013	0.099
42	1.955	7.090	0.000	0.039	2.037	0.264	14.777	0.255	0.967	0.002	0.014	2.530	0.005	0.280	0.013	0.098

43	1.993	7.080	0.000	0.039	2.076	0.266	14.892	0.257	0.966	0.002	0.014	2.520	0.005	0.285	0.012	0.097
44	2.030	7.070	0.000	0.039	2.115	0.268	15.006	0.259	0.966	0.002	0.014	2.510	0.005	0.290	0.012	0.096
45	2.068	7.060	0.000	0.038	2.153	0.270	15.119	0.261	0.965	0.002	0.014	2.500	0.005	0.295	0.012	0.095
46	2.105	7.050	0.000	0.038	2.191	0.272	15.231	0.263	0.965	0.002	0.013	2.490	0.005	0.300	0.012	0.094
47	2.141	7.040	0.000	0.038	2.229	0.274	15.343	0.265	0.964	0.002	0.013	2.480	0.005	0.304	0.012	0.094
48	2.178	7.030	0.000	0.038	2.267	0.276	15.454	0.266	0.964	0.002	0.013	2.470	0.005	0.309	0.011	0.093
49	2.214	7.020	0.000	0.037	2.304	0.279	15.563	0.268	0.963	0.002	0.013	2.460	0.005	0.313	0.011	0.092
50	2.250	7.010	0.000	0.037	2.341	0.281	15.673	0.270	0.963	0.002	0.013	2.450	0.005	0.318	0.011	0.091
51	2.286	7.000	0.000	0.037	2.378	0.283	15.781	0.272	0.962	0.002	0.013	2.440	0.004	0.322	0.011	0.090
52	2.321	6.990	0.000	0.037	2.414	0.285	15.889	0.274	0.962	0.002	0.013	2.430	0.004	0.327	0.011	0.089
53	2.356	6.980	0.000	0.036	2.451	0.287	15.996	0.276	0.961	0.002	0.013	2.420	0.004	0.331	0.011	0.088
54	2.391	6.970	0.000	0.036	2.487	0.289	16.102	0.277	0.961	0.002	0.013	2.410	0.004	0.336	0.010	0.087
55	2.426	6.960	0.000	0.036	2.522	0.291	16.208	0.279	0.960	0.002	0.012	2.400	0.004	0.340	0.010	0.087
56	2.460	6.950	0.000	0.036	2.558	0.293	16.312	0.281	0.960	0.002	0.012	2.390	0.004	0.344	0.010	0.086
57	2.494	6.940	0.000	0.035	2.593	0.295	16.417	0.283	0.959	0.002	0.012	2.380	0.004	0.348	0.010	0.085
58	2.528	6.930	0.000	0.035	2.629	0.297	16.520	0.284	0.959	0.002	0.012	2.370	0.004	0.353	0.010	0.084
59	2.562	6.920	0.000	0.035	2.664	0.299	16.623	0.286	0.958	0.002	0.012	2.360	0.004	0.357	0.010	0.084
60	2.595	6.910	0.000	0.035	2.698	0.301	16.726	0.288	0.958	0.002	0.012	2.350	0.004	0.361	0.010	0.083
61	2.629	6.900	0.000	0.035	2.733	0.302	16.828	0.289	0.957	0.002	0.012	2.340	0.004	0.365	0.009	0.082
62	2.662	6.890	0.000	0.034	2.767	0.304	16.929	0.291	0.957	0.002	0.012	2.330	0.004	0.369	0.009	0.081
63	2.695	6.880	0.000	0.034	2.801	0.306	17.029	0.293	0.956	0.002	0.012	2.320	0.004	0.373	0.009	0.081
64	2.727	6.870	0.000	0.034	2.835	0.308	17.129	0.295	0.956	0.002	0.012	2.310	0.004	0.377	0.009	0.080
65	2.760	6.860	0.000	0.034	2.869	0.310	17.229	0.296	0.955	0.002	0.012	2.300	0.004	0.381	0.009	0.079
66	2.792	6.850	0.000	0.034	2.903	0.312	17.328	0.298	0.955	0.002	0.011	2.290	0.004	0.384	0.009	0.079
67	2.824	6.840	0.000	0.033	2.936	0.314	17.426	0.299	0.954	0.002	0.011	2.280	0.004	0.388	0.009	0.078
68	2.856	6.830	0.000	0.033	2.969	0.316	17.524	0.301	0.954	0.002	0.011	2.270	0.004	0.392	0.009	0.077
69	2.887	6.820	0.000	0.033	3.002	0.318	17.621	0.303	0.953	0.002	0.011	2.260	0.004	0.396	0.008	0.077
70	2.919	6.810	0.000	0.033	3.035	0.319	17.718	0.304	0.953	0.002	0.011	2.250	0.004	0.399	0.008	0.076
71	2.950	6.800	0.000	0.033	3.068	0.321	17.815	0.306	0.952	0.002	0.011	2.240	0.004	0.403	0.008	0.075
72	2.981	6.790	0.000	0.033	3.100	0.323	17.910	0.308	0.952	0.002	0.011	2.230	0.004	0.407	0.008	0.075
73	3.012	6.780	0.000	0.032	3.133	0.325	18.006	0.309	0.951	0.002	0.011	2.220	0.004	0.410	0.008	0.074
74	3.043	6.770	0.000	0.032	3.165	0.327	18.100	0.311	0.951	0.002	0.011	2.210	0.004	0.414	0.008	0.074
75	3.074	6.760	0.000	0.032	3.197	0.329	18.195	0.312	0.950	0.002	0.011	2.200	0.004	0.417	0.008	0.073
76	3.104	6.750	0.000	0.032	3.229	0.330	18.289	0.314	0.949	0.002	0.011	2.190	0.004	0.421	0.008	0.072
77	3.134	6.740	0.000	0.032	3.260	0.332	18.382	0.315	0.949	0.002	0.011	2.180	0.003	0.424	0.008	0.072
78	3.164	6.730	0.000	0.032	3.292	0.334	18.475	0.317	0.948	0.002	0.011	2.170	0.003	0.428	0.007	0.071
79	3.194	6.720	0.000	0.031	3.323	0.336	18.567	0.318	0.948	0.002	0.011	2.160	0.003	0.431	0.007	0.071
80	3.224	6.710	0.000	0.031	3.355	0.338	18.660	0.320	0.947	0.002	0.010	2.150	0.003	0.434	0.007	0.070
81	3.254	6.700	0.000	0.031	3.386	0.339	18.751	0.321	0.947	0.002	0.010	2.140	0.003	0.438	0.007	0.070
82	3.283	6.690	0.000	0.031	3.417	0.341	18.842	0.323	0.946	0.002	0.010	2.130	0.003	0.441	0.007	0.069
83	3.312	6.680	0.000	0.031	3.448	0.343	18.933	0.324	0.946	0.002	0.010	2.120	0.003	0.444	0.007	0.069
84	3.342	6.670	0.000	0.031	3.478	0.345	19.023	0.326	0.945	0.002	0.010	2.110	0.003	0.448	0.007	0.068
85	3.371	6.660	0.000	0.031	3.509	0.347	19.113	0.327	0.945	0.002	0.010	2.100	0.003	0.451	0.007	0.068
86	3.399	6.650	0.000	0.030	3.539	0.348	19.203	0.329	0.944	0.002	0.010	2.090	0.003	0.454	0.007	0.067
87	3.428	6.640	0.000	0.030	3.569	0.350	19.292	0.330	0.944	0.002	0.010	2.080	0.003	0.457	0.007	0.067
88	3.457	6.630	0.000	0.030	3.600	0.352	19.381	0.332	0.943	0.002	0.010	2.070	0.003	0.460	0.006	0.066
89	3.485	6.620	0.000	0.030	3.630	0.354	19.469	0.333	0.943	0.002	0.010	2.060	0.003	0.463	0.006	0.066
90	3.513	6.610	0.000	0.030	3.659	0.355	19.557	0.335	0.942	0.001	0.010	2.050	0.003	0.466	0.006	0.065
91	3.542	6.600	0.000	0.030	3.689	0.357	19.645	0.336	0.942	0.001	0.010	2.040	0.003	0.469	0.006	0.065
92	3.570	6.590	0.000	0.030	3.719	0.359	19.732	0.338	0.941	0.001	0.010	2.030	0.003	0.472	0.006	0.064
93	3.598	6.580	0.000	0.029	3.748	0.360	19.819	0.339	0.941	0.001	0.010	2.020	0.003	0.475	0.006	0.064
94	3.625	6.570	0.000	0.029	3.778	0.362	19.905	0.340	0.940	0.001	0.010	2.010	0.003	0.478	0.006	0.063
95	3.653	6.560	0.000	0.029	3.807	0.364	19.991	0.342	0.940	0.001	0.010	2.000	0.003	0.481	0.006	0.063
96	3.680	6.550	0.000	0.029	3.836	0.365	20.077	0.343	0.939	0.001	0.010	1.990	0.003	0.484	0.006	0.062
97	3.708	6.540	0.000	0.029	3.865	0.367	20.163	0.345	0.939	0.001	0.009	1.980	0.003	0.487	0.006	0.062
98	3.735	6.530	0.000	0.029	3.894	0.369	20.248	0.346	0.938	0.001	0.009	1.970	0.003	0.490	0.006	0.062
99	3.762	6.520	0.000	0.029	3.923	0.371	20.332	0.347	0.938	0.001	0.009	1.960	0.003	0.493	0.006	0.061
100	3.789	6.510	0.000	0.029	3.951	0.372	20.417	0.349	0.937	0.001	0.009	1.950	0.003	0.496	0.005	0.061
101	3.816	6.500	0.000	0.029	3.980	0.374	20.501	0.350	0.937	0.001	0.009	1.940	0.003	0.498	0.005	0.060
102	3.843	6.490	0.000	0.028	4.008	0.376	20.585	0.352	0.936	0.001	0.009	1.930	0.003	0.501	0.005	0.060
103	3.869	6.480	0.000	0.028	4.037	0.377	20.668	0.353	0.936	0.001	0.009	1.920	0.003	0.504	0.005	0.059
104	3.896	6.470	0.000	0.028	4.065	0.379	20.751	0.354	0.935	0.001	0.009	1.910	0.003	0.506	0.005	0.059
105	3.922	6.460	0.000	0.028	4.093	0.381	20.834	0.356	0.935	0.001	0.009	1.900	0.003	0.509	0.005	0.059
106	3.948	6.450	0.000	0.028	4.121	0.382	20.916	0.357	0.934	0.001	0.009	1.890	0.003	0.512	0.005	0.058
107	3.975	6.440	0.000	0.028	4.149	0.384	20.998	0.358	0.934	0.001	0.009	1.880	0.003	0.514	0.005	0.058
108	4.001	6.430	0.000	0.028	4.177	0.385	21.080	0.360	0.933	0.001	0.009	1.870	0.003	0.517	0.005	0.057
109	4.027	6.420	0.000	0.028	4.204	0.387	21.162	0.361	0.933	0.001	0.009	1.860	0.003	0.520	0.005	0.057
110	4.052	6.410	0.000	0.028	4.232	0.389	21.243	0.362	0.932	0.001	0.009	1.850	0.003	0.522	0.005	0.057
111	4.078	6.400	0.000	0.027	4.260	0.390	21.324	0.364	0.932	0.001	0.009	1.840	0.003	0.525	0.005	0.056
112	4.104	6.390	0.000	0.027	4.287	0.392	21.405	0.365	0.931	0.001	0.009	1.830	0.003	0.527	0.005	0.056
113	4.129	6.380	0.000	0.027	4.314	0.394	21.485	0.366	0.931	0.001	0.009	1.820	0.002	0.530	0.005	0.055
114	4.155	6.370	0.000	0.027												

120	4.305	6.310	0.000	0.027	4.503	0.405	22.040	0.375	0.927	0.001	0.008	1.750	0.002	0.546	0.004	0.053
121	4.330	6.300	0.000	0.027	4.529	0.406	22.118	0.377	0.926	0.001	0.008	1.740	0.002	0.549	0.004	0.053
122	4.354	6.290	0.000	0.028	4.556	0.408	22.196	0.378	0.926	0.001	0.008	1.730	0.002	0.551	0.004	0.052
123	4.379	6.280	0.000	0.028	4.582	0.410	22.273	0.379	0.925	0.001	0.008	1.720	0.002	0.553	0.004	0.052
124	4.403	6.270	0.000	0.028	4.608	0.411	22.351	0.380	0.925	0.001	0.008	1.710	0.002	0.556	0.004	0.052
125	4.428	6.260	0.000	0.028	4.635	0.413	22.428	0.382	0.924	0.001	0.008	1.700	0.002	0.558	0.004	0.051
126	4.452	6.250	0.000	0.028	4.661	0.414	22.505	0.383	0.924	0.001	0.008	1.690	0.002	0.560	0.004	0.051
127	4.476	6.240	0.000	0.028	4.687	0.416	22.582	0.384	0.923	0.001	0.008	1.680	0.002	0.562	0.004	0.051
128	4.500	6.230	0.000	0.028	4.713	0.417	22.658	0.385	0.923	0.001	0.008	1.670	0.002	0.564	0.004	0.050
129	4.524	6.220	0.000	0.028	4.739	0.419	22.734	0.386	0.922	0.001	0.008	1.660	0.002	0.566	0.004	0.050
130	4.548	6.210	0.000	0.028	4.764	0.421	22.810	0.388	0.922	0.001	0.008	1.650	0.002	0.569	0.004	0.050
131	4.572	6.200	0.000	0.028	4.790	0.422	22.886	0.389	0.921	0.001	0.008	1.640	0.002	0.571	0.003	0.049
132	4.595	6.190	0.000	0.026	4.816	0.424	22.961	0.390	0.921	0.001	0.008	1.630	0.002	0.573	0.003	0.049
133	4.619	6.180	0.000	0.026	4.841	0.425	23.036	0.391	0.920	0.001	0.008	1.620	0.002	0.575	0.003	0.049
134	4.642	6.170	0.000	0.025	4.867	0.427	23.111	0.393	0.920	0.001	0.008	1.610	0.002	0.577	0.003	0.048
135	4.666	6.160	0.000	0.025	4.892	0.428	23.186	0.394	0.919	0.001	0.008	1.600	0.002	0.579	0.003	0.048
136	4.689	6.150	0.000	0.025	4.918	0.430	23.261	0.395	0.919	0.001	0.008	1.590	0.002	0.581	0.003	0.048
137	4.712	6.140	0.000	0.025	4.943	0.431	23.335	0.396	0.918	0.001	0.008	1.580	0.002	0.583	0.003	0.048
138	4.736	6.130	0.000	0.025	4.968	0.433	23.409	0.397	0.918	0.001	0.008	1.570	0.002	0.585	0.003	0.047
139	4.759	6.120	0.000	0.025	4.993	0.434	23.483	0.398	0.917	0.001	0.008	1.560	0.002	0.587	0.003	0.047
140	4.782	6.110	0.000	0.025	5.018	0.436	23.556	0.400	0.917	0.001	0.008	1.550	0.002	0.589	0.003	0.047
141	4.805	6.100	0.000	0.025	5.043	0.438	23.630	0.401	0.916	0.001	0.008	1.540	0.002	0.591	0.003	0.046
142	4.828	6.090	0.000	0.025	5.068	0.439	23.703	0.402	0.916	0.001	0.008	1.530	0.002	0.593	0.003	0.046
143	4.850	6.080	0.000	0.025	5.093	0.441	23.777	0.403	0.915	0.001	0.008	1.520	0.002	0.595	0.003	0.046
144	4.873	6.070	0.000	0.025	5.117	0.442	23.849	0.404	0.915	0.001	0.008	1.510	0.002	0.596	0.003	0.045
145	4.896	6.060	0.000	0.025	5.142	0.444	23.921	0.405	0.914	0.001	0.007	1.500	0.002	0.598	0.003	0.045
146	4.918	6.050	0.000	0.025	5.167	0.445	23.994	0.407	0.914	0.001	0.007	1.490	0.002	0.600	0.003	0.045
147	4.941	6.040	0.000	0.025	5.191	0.447	24.066	0.408	0.913	0.001	0.007	1.480	0.002	0.602	0.003	0.045
148	4.963	6.030	0.000	0.024	5.216	0.448	24.138	0.409	0.913	0.001	0.007	1.470	0.002	0.604	0.003	0.044
149	4.985	6.020	0.000	0.024	5.240	0.450	24.210	0.410	0.912	0.001	0.007	1.460	0.002	0.605	0.003	0.044
150	5.008	6.010	0.000	0.024	5.264	0.451	24.281	0.411	0.912	0.001	0.007	1.450	0.002	0.607	0.003	0.044
151	5.030	6.000	0.000	0.024	5.289	0.453	24.352	0.412	0.911	0.001	0.007	1.440	0.002	0.609	0.003	0.044
152	5.052	5.990	0.000	0.024	5.313	0.454	24.424	0.413	0.911	0.001	0.007	1.430	0.002	0.611	0.002	0.043
153	5.074	5.980	0.000	0.024	5.337	0.456	24.495	0.415	0.910	0.001	0.007	1.420	0.002	0.612	0.002	0.043
154	5.096	5.970	0.000	0.024	5.361	0.457	24.565	0.418	0.909	0.001	0.007	1.410	0.002	0.614	0.002	0.043
155	5.118	5.960	0.000	0.024	5.385	0.459	24.636	0.417	0.909	0.001	0.007	1.400	0.002	0.616	0.002	0.043
156	5.140	5.950	0.000	0.024	5.409	0.460	24.706	0.418	0.908	0.001	0.007	1.390	0.002	0.617	0.002	0.042
157	5.161	5.940	0.000	0.024	5.433	0.462	24.777	0.419	0.908	0.001	0.007	1.380	0.002	0.619	0.002	0.042
158	5.183	5.930	0.000	0.024	5.457	0.463	24.847	0.420	0.907	0.001	0.007	1.370	0.002	0.621	0.002	0.042
159	5.205	5.920	0.000	0.024	5.480	0.465	24.916	0.421	0.907	0.001	0.007	1.360	0.002	0.622	0.002	0.042
160	5.226	5.910	0.000	0.024	5.504	0.466	24.986	0.422	0.906	0.001	0.007	1.350	0.002	0.624	0.002	0.041
161	5.247	5.900	0.000	0.024	5.528	0.467	25.055	0.423	0.906	0.001	0.007	1.340	0.002	0.626	0.002	0.041
162	5.269	5.890	0.000	0.024	5.551	0.469	25.125	0.425	0.905	0.001	0.007	1.330	0.002	0.627	0.002	0.041
163	5.290	5.880	0.000	0.023	5.575	0.470	25.194	0.426	0.905	0.001	0.007	1.320	0.002	0.629	0.002	0.041
164	5.311	5.870	0.000	0.023	5.598	0.472	25.263	0.427	0.904	0.001	0.007	1.310	0.002	0.630	0.002	0.040
165	5.333	5.860	0.000	0.023	5.621	0.473	25.332	0.428	0.904	0.001	0.007	1.300	0.002	0.632	0.002	0.040
166	5.354	5.850	0.000	0.023	5.645	0.475	25.400	0.429	0.903	0.001	0.007	1.290	0.002	0.633	0.002	0.040
167	5.375	5.840	0.000	0.023	5.668	0.476	25.469	0.430	0.903	0.001	0.007	1.280	0.001	0.635	0.002	0.040
168	5.396	5.830	0.000	0.023	5.691	0.478	25.537	0.431	0.902	0.001	0.007	1.270	0.001	0.636	0.002	0.039
169	5.417	5.820	0.000	0.023	5.714	0.479	25.605	0.432	0.902	0.001	0.007	1.260	0.001	0.638	0.002	0.039
170	5.438	5.810	0.000	0.023	5.737	0.481	25.673	0.433	0.901	0.001	0.007	1.250	0.001	0.639	0.002	0.039
171	5.458	5.800	0.000	0.023	5.760	0.482	25.741	0.434	0.901	0.001	0.007	1.240	0.001	0.640	0.002	0.039
172	5.479	5.790	0.000	0.023	5.783	0.484	25.808	0.435	0.900	0.001	0.007	1.230	0.001	0.642	0.002	0.038
173	5.500	5.780	0.000	0.023	5.806	0.485	25.876	0.436	0.900	0.001	0.007	1.220	0.001	0.643	0.002	0.038
174	5.520	5.770	0.000	0.023	5.829	0.486	25.943	0.437	0.899	0.001	0.007	1.210	0.001	0.645	0.002	0.038
175	5.541	5.760	0.000	0.023	5.852	0.488	26.010	0.439	0.899	0.001	0.007	1.200	0.001	0.646	0.002	0.038
176	5.562	5.750	0.000	0.023	5.875	0.489	26.077	0.440	0.898	0.001	0.007	1.190	0.001	0.647	0.002	0.038
177	5.582	5.740	0.000	0.023	5.897	0.491	26.144	0.441	0.898	0.001	0.007	1.180	0.001	0.649	0.002	0.037
178	5.602	5.730	0.000	0.023	5.920	0.492	26.210	0.442	0.897	0.001	0.006	1.170	0.001	0.650	0.002	0.037
179	5.623	5.720	0.000	0.023	5.943	0.494	26.277	0.443	0.897	0.001	0.006	1.160	0.001	0.651	0.002	0.037
180	5.643	5.710	0.000	0.023	5.965	0.495	26.343	0.444	0.896	0.001	0.006	1.150	0.001	0.653	0.001	0.037
181	5.663	5.700	0.000	0.022	5.988	0.497	26.409	0.445	0.896	0.001	0.006	1.140	0.001	0.654	0.001	0.036
182	5.683	5.690	0.000	0.022	6.010	0.498	26.475	0.446	0.895	0.001	0.006	1.130	0.001	0.655	0.001	0.036
183	5.703	5.680	0.000	0.022	6.033	0.499	26.541	0.447	0.895	0.001	0.006	1.120	0.001	0.656	0.001	0.036
184	5.723	5.670	0.000	0.022	6.055	0.501	26.607	0.448	0.894	0.001	0.006	1.110	0.001	0.658	0.001	0.036
185	5.743	5.660	0.000	0.022	6.077	0.502	26.672	0.449	0.894	0.001	0.006	1.100	0.001	0.659	0.001	0.036
186	5.763	5.650	0.000	0.022	6.099	0.504	26.737	0.450	0.893	0.001	0.006	1.090	0.001	0.660	0.001	0.035
187	5.783	5.640	0.000	0.022	6.122	0.505	26.803	0.451	0.893	0.001	0.006	1.080	0.001	0.661	0.001	0.035
188	5.803	5.630	0.000	0.022	6.144	0.507	26.868	0.452	0.892	0.001	0.006	1.070	0.001	0.662	0.001	0.035
189	5.823	5.620	0.000	0.022	6.166	0.508	26.933	0.453	0.892	0.001	0.006	1.060	0.001	0.664	0.001	0.035
190	5.842	5.610	0.000	0.022	6.188	0.509	26.998	0.454	0.891	0.001	0.006	1.050	0.001	0.665	0.001	0.0

197	5.979	5.540	0.000	0.022	6.341	0.519	27.447	0.461	0.887	0.001	0.006	0.980	0.001	0.673	0.001	0.033
198	5.998	5.530	0.000	0.022	6.362	0.521	27.511	0.462	0.887	0.001	0.006	0.970	0.001	0.674	0.001	0.033
199	6.017	5.520	0.000	0.022	6.384	0.522	27.574	0.463	0.886	0.001	0.006	0.960	0.001	0.675	0.001	0.033
200	6.036	5.510	0.000	0.022	6.405	0.524	27.638	0.464	0.886	0.001	0.006	0.950	0.001	0.676	0.001	0.033
201	6.055	5.500	0.000	0.022	6.427	0.525	27.701	0.465	0.885	0.001	0.006	0.940	0.001	0.677	0.001	0.032
202	6.074	5.490	0.000	0.021	6.448	0.526	27.764	0.466	0.885	0.001	0.006	0.930	0.001	0.678	0.001	0.032
203	6.093	5.480	0.000	0.021	6.470	0.528	27.827	0.467	0.884	0.001	0.006	0.920	0.001	0.679	0.001	0.032
204	6.112	5.470	0.000	0.021	6.491	0.529	27.890	0.468	0.884	0.001	0.006	0.910	0.001	0.680	0.001	0.032
205	6.131	5.460	0.000	0.021	6.513	0.531	27.953	0.469	0.883	0.001	0.006	0.900	0.001	0.681	0.001	0.032
206	6.150	5.450	0.000	0.021	6.534	0.532	28.015	0.470	0.883	0.001	0.006	0.890	0.001	0.682	0.001	0.032
207	6.169	5.440	0.000	0.021	6.555	0.533	28.078	0.471	0.882	0.001	0.006	0.880	0.001	0.682	0.001	0.031
208	6.187	5.430	0.000	0.021	6.576	0.535	28.140	0.472	0.882	0.001	0.006	0.870	0.001	0.683	0.001	0.031
209	6.206	5.420	0.000	0.021	6.597	0.536	28.203	0.473	0.881	0.001	0.006	0.860	0.001	0.684	0.001	0.031
210	6.225	5.410	0.000	0.021	6.619	0.538	28.265	0.474	0.881	0.001	0.006	0.850	0.001	0.685	0.001	0.031
211	6.243	5.400	0.000	0.021	6.640	0.539	28.327	0.474	0.880	0.001	0.006	0.840	0.001	0.686	0.001	0.031
212	6.262	5.390	0.000	0.021	6.661	0.540	28.388	0.475	0.880	0.001	0.006	0.830	0.001	0.687	0.001	0.030
213	6.280	5.380	0.000	0.021	6.682	0.542	28.450	0.476	0.879	0.001	0.006	0.820	0.001	0.688	0.001	0.030
214	6.299	5.370	0.000	0.021	6.703	0.543	28.512	0.477	0.879	0.001	0.006	0.810	0.001	0.689	0.001	0.030
215	6.317	5.360	0.000	0.021	6.724	0.545	28.573	0.478	0.878	0.001	0.006	0.800	0.001	0.689	0.001	0.030
216	6.336	5.350	0.000	0.021	6.744	0.546	28.635	0.479	0.878	0.001	0.006	0.790	0.001	0.690	0.001	0.030
217	6.354	5.340	0.000	0.021	6.765	0.547	28.696	0.480	0.877	0.001	0.006	0.780	0.001	0.691	0.001	0.030
218	6.372	5.330	0.000	0.021	6.786	0.549	28.757	0.481	0.877	0.001	0.006	0.770	0.001	0.692	0.001	0.029
219	6.391	5.320	0.000	0.021	6.807	0.550	28.818	0.482	0.876	0.001	0.006	0.760	0.001	0.693	0.001	0.029
220	6.409	5.310	0.000	0.021	6.827	0.552	28.879	0.483	0.876	0.001	0.005	0.750	0.001	0.693	0.001	0.029
221	6.427	5.300	0.000	0.021	6.848	0.553	28.940	0.484	0.875	0.001	0.005	0.740	0.001	0.694	0.001	0.029
222	6.445	5.290	0.000	0.021	6.869	0.554	29.000	0.485	0.875	0.001	0.005	0.730	0.001	0.695	0.001	0.029
223	6.463	5.280	0.000	0.021	6.889	0.556	29.061	0.486	0.874	0.001	0.005	0.720	0.001	0.696	0.001	0.029
224	6.481	5.270	0.000	0.021	6.910	0.557	29.121	0.487	0.874	0.001	0.005	0.710	0.001	0.696	0.001	0.028
225	6.499	5.260	0.000	0.021	6.930	0.558	29.182	0.488	0.873	0.001	0.005	0.700	0.001	0.697	0.001	0.028
226	6.517	5.250	0.000	0.020	6.951	0.560	29.242	0.488	0.873	0.001	0.005	0.690	0.001	0.698	0.000	0.028
227	6.535	5.240	0.000	0.020	6.971	0.561	29.302	0.489	0.872	0.001	0.005	0.680	0.001	0.699	0.000	0.028
228	6.552	5.230	0.000	0.020	6.992	0.563	29.362	0.490	0.872	0.001	0.005	0.670	0.001	0.699	0.000	0.028
229	6.570	5.220	0.000	0.020	7.012	0.564	29.422	0.491	0.871	0.001	0.005	0.660	0.001	0.700	0.000	0.028
230	6.588	5.210	0.000	0.020	7.032	0.565	29.482	0.492	0.871	0.001	0.005	0.650	0.001	0.701	0.000	0.028
231	6.606	5.200	0.000	0.020	7.053	0.567	29.541	0.493	0.870	0.001	0.005	0.640	0.001	0.701	0.000	0.027
232	6.623	5.190	0.000	0.020	7.073	0.568	29.601	0.494	0.869	0.001	0.005	0.630	0.001	0.702	0.000	0.027
233	6.641	5.180	0.000	0.020	7.093	0.569	29.660	0.495	0.869	0.001	0.005	0.620	0.001	0.703	0.000	0.027
234	6.658	5.170	0.000	0.020	7.113	0.571	29.720	0.496	0.868	0.001	0.005	0.610	0.001	0.703	0.000	0.027
235	6.676	5.160	0.000	0.020	7.133	0.572	29.779	0.497	0.868	0.001	0.005	0.600	0.001	0.704	0.000	0.027
236	6.693	5.150	0.000	0.020	7.153	0.574	29.838	0.498	0.867	0.001	0.005	0.590	0.001	0.704	0.000	0.027
237	6.711	5.140	0.000	0.020	7.174	0.575	29.897	0.498	0.867	0.001	0.005	0.580	0.001	0.705	0.000	0.026
238	6.728	5.130	0.000	0.020	7.194	0.576	29.956	0.499	0.866	0.001	0.005	0.570	0.001	0.705	0.000	0.026
239	6.746	5.120	0.000	0.020	7.214	0.578	30.015	0.500	0.866	0.001	0.005	0.560	0.001	0.706	0.000	0.026
240	6.763	5.110	0.000	0.020	7.234	0.579	30.073	0.501	0.865	0.001	0.005	0.550	0.001	0.707	0.000	0.026
241	6.780	5.100	0.000	0.020	7.253	0.580	30.132	0.502	0.865	0.001	0.005	0.540	0.001	0.707	0.000	0.026
242	6.797	5.090	0.000	0.020	7.273	0.582	30.190	0.503	0.864	0.001	0.005	0.530	0.001	0.708	0.000	0.026
243	6.815	5.080	0.000	0.020	7.293	0.583	30.249	0.504	0.864	0.001	0.005	0.520	0.001	0.708	0.000	0.026
244	6.832	5.070	0.000	0.020	7.313	0.585	30.307	0.505	0.863	0.001	0.005	0.510	0.001	0.709	0.000	0.025
245	6.849	5.060	0.000	0.020	7.333	0.586	30.365	0.506	0.863	0.001	0.005	0.500	0.000	0.709	0.000	0.025
246	6.866	5.050	0.000	0.020	7.353	0.587	30.423	0.506	0.862	0.001	0.005	0.490	0.000	0.710	0.000	0.025
247	6.883	5.040	0.000	0.020	7.372	0.589	30.481	0.507	0.862	0.001	0.005	0.480	0.000	0.710	0.000	0.025
248	6.900	5.030	0.000	0.020	7.392	0.590	30.539	0.508	0.861	0.001	0.005	0.470	0.000	0.711	0.000	0.025
249	6.917	5.020	0.000	0.020	7.412	0.591	30.597	0.509	0.861	0.001	0.005	0.460	0.000	0.711	0.000	0.025
250	6.934	5.010	0.000	0.020	7.431	0.593	30.655	0.510	0.860	0.001	0.005	0.450	0.000	0.711	0.000	0.025
251	6.951	5.000	0.000	0.020	7.451	0.594	30.712	0.511	0.860	0.001	0.005	0.440	0.000	0.712	0.000	0.024
252	6.968	4.990	0.000	0.020	7.470	0.595	30.770	0.512	0.859	0.001	0.005	0.430	0.000	0.712	0.000	0.024
253	6.984	4.980	0.000	0.020	7.490	0.597	30.827	0.512	0.859	0.001	0.005	0.420	0.000	0.713	0.000	0.024
254	7.001	4.970	0.000	0.019	7.509	0.598	30.884	0.513	0.858	0.001	0.005	0.410	0.000	0.713	0.000	0.024
255	7.018	4.960	0.000	0.019	7.529	0.599	30.941	0.514	0.858	0.001	0.005	0.400	0.000	0.714	0.000	0.024
256	7.035	4.950	0.000	0.019	7.548	0.601	30.999	0.515	0.857	0.001	0.005	0.390	0.000	0.714	0.000	0.024
257	7.051	4.940	0.000	0.019	7.568	0.602	31.056	0.516	0.857	0.001	0.005	0.380	0.000	0.714	0.000	0.024
258	7.068	4.930	0.000	0.019	7.587	0.604	31.112	0.517	0.856	0.001	0.005	0.370	0.000	0.715	0.000	0.023
259	7.084	4.920	0.000	0.019	7.606	0.605	31.169	0.518	0.856	0.001	0.005	0.360	0.000	0.715	0.000	0.023
260	7.101	4.910	0.000	0.019	7.626	0.606	31.226	0.518	0.855	0.001	0.005	0.350	0.000	0.715	0.000	0.023
261	7.117	4.900	0.000	0.019	7.645	0.608	31.283	0.519	0.855	0.001	0.005	0.340	0.000	0.716	0.000	0.023
262	7.134	4.890	0.000	0.019	7.664	0.609	31.339	0.520	0.854	0.001	0.005	0.330	0.000	0.716	0.000	0.023
263	7.150	4.880	0.000	0.019	7.683	0.610	31.396	0.521	0.854	0.001	0.005	0.320	0.000	0.716	0.000	0.023
264	7.167	4.870	0.000	0.019	7.702	0.612	31.452	0.522	0.853	0.001	0.005	0.310	0.000	0.717	0.000	0.023
265	7.183	4.860	0.000	0.019	7.722	0.613	31.508	0.523	0.853	0.001	0.005	0.300	0.000	0.717	0.000	0.023
266	7.199	4.850	0.000	0.019	7.741	0.614	31.564	0.523	0.852	0.001	0.005	0.290	0.000	0.717	0.000	0.022
267	7.216	4.840	0.000	0.019	7.760	0.616	31.621	0.524	0.852	0.001	0.005	0.280	0.000	0.717	0.000	0.0

274	7.329	4.770	0.000	0.019	7.892	0.825	32.011	0.530	0.848	0.001	0.004	0.210	0.000	0.719	0.000	0.021
275	7.345	4.760	0.000	0.019	7.911	0.826	32.086	0.531	0.847	0.001	0.004	0.200	0.000	0.719	0.000	0.021
276	7.360	4.750	0.000	0.019	7.930	0.828	32.121	0.532	0.847	0.001	0.004	0.190	0.000	0.719	0.000	0.021
277	7.376	4.740	0.000	0.019	7.949	0.829	32.177	0.533	0.846	0.001	0.004	0.180	0.000	0.720	0.000	0.021
278	7.392	4.730	0.000	0.019	7.968	0.831	32.232	0.533	0.846	0.001	0.004	0.170	0.000	0.720	0.000	0.021
279	7.408	4.720	0.000	0.019	7.986	0.832	32.287	0.534	0.845	0.001	0.004	0.160	0.000	0.720	0.000	0.021
280	7.424	4.710	0.000	0.019	8.005	0.833	32.342	0.535	0.845	0.001	0.004	0.150	0.000	0.720	0.000	0.021
281	7.440	4.700	0.000	0.019	8.024	0.835	32.397	0.538	0.844	0.001	0.004	0.140	0.000	0.720	0.000	0.021
282	7.456	4.690	0.000	0.019	8.042	0.836	32.451	0.537	0.844	0.001	0.004	0.130	0.000	0.720	0.000	0.020
283	7.471	4.680	0.000	0.019	8.061	0.837	32.506	0.537	0.843	0.001	0.004	0.120	0.000	0.720	0.000	0.020
284	7.487	4.670	0.000	0.019	8.079	0.839	32.561	0.538	0.843	0.001	0.004	0.110	0.000	0.720	0.000	0.020
285	7.503	4.660	0.000	0.019	8.098	0.840	32.615	0.539	0.842	0.001	0.004	0.100	0.000	0.721	0.000	0.020
286	7.518	4.650	0.000	0.019	8.117	0.841	32.670	0.540	0.842	0.001	0.004	0.090	0.000	0.721	0.000	0.020
287	7.534	4.640	0.000	0.018	8.135	0.843	32.724	0.541	0.841	0.001	0.004	0.080	0.000	0.721	0.000	0.020
288	7.549	4.630	0.000	0.018	8.153	0.844	32.778	0.541	0.841	0.001	0.004	0.070	0.000	0.721	0.000	0.020
289	7.565	4.620	0.000	0.018	8.172	0.845	32.833	0.542	0.840	0.001	0.004	0.060	0.000	0.721	0.000	0.020
290	7.580	4.610	0.000	0.018	8.190	0.847	32.887	0.543	0.840	0.001	0.004	0.050	0.000	0.721	0.000	0.020
291	7.596	4.600	0.000	0.018	8.209	0.848	32.941	0.544	0.839	0.001	0.004	0.040	0.000	0.721	0.000	0.019
292	7.611	4.590	0.000	0.018	8.227	0.849	32.995	0.545	0.839	0.001	0.004	0.030	0.000	0.721	0.000	0.019
293	7.627	4.580	0.000	0.018	8.245	0.851	33.049	0.545	0.838	0.001	0.004	0.020	0.000	0.721	0.000	0.019
294	7.642	4.570	0.000	0.018	8.264	0.852	33.103	0.546	0.838	0.001	0.004	0.010	0.000	0.721	0.000	0.019
295	7.657	4.560	0.000	0.018	8.282	0.853	33.156	0.547	0.837	0.001	0.004	0.000	0.000	0.721	0.000	0.019
296	7.673	4.550	0.000	0.018	8.300	0.855	33.210	0.548	0.837	0.001	0.004	-0.010	0.000	0.721	0.000	0.019
297	7.688	4.540	0.000	0.018	8.319	0.856	33.264	0.548	0.836	0.001	0.004	-0.020	0.000	0.721	0.000	0.019
298	7.703	4.530	0.000	0.018	8.337	0.857	33.317	0.549	0.836	0.001	0.004	-0.030	0.000	0.721	0.000	0.019
299	7.718	4.520	0.000	0.018	8.355	0.859	33.371	0.550	0.835	0.001	0.004	-0.040	0.000	0.721	0.000	0.019
300	7.734	4.510	0.000	0.018	8.373	0.860	33.424	0.551	0.835	0.001	0.004	-0.050	0.000	0.721	0.000	0.018
301	7.749	4.500	0.000	0.018	8.391	0.861	33.477	0.552	0.834	0.001	0.004	-0.060	0.000	0.721	0.000	0.018
302	7.764	4.490	0.000	0.018	8.409	0.863	33.531	0.552	0.834	0.001	0.004	-0.070	0.000	0.721	0.000	0.018
303	7.779	4.480	0.000	0.018	8.427	0.864	33.584	0.553	0.833	0.001	0.004	-0.080	0.000	0.721	0.000	0.018
304	7.794	4.470	0.000	0.018	8.445	0.865	33.637	0.554	0.833	0.001	0.004	-0.090	0.000	0.721	0.000	0.018
305	7.809	4.460	0.000	0.018	8.463	0.867	33.690	0.555	0.832	0.001	0.004	-0.100	0.000	0.720	0.000	0.018
306	7.824	4.450	0.000	0.018	8.481	0.868	33.743	0.555	0.832	0.001	0.004	-0.110	0.000	0.720	0.000	0.018
307	7.839	4.440	0.000	0.018	8.499	0.869	33.796	0.556	0.831	0.001	0.004	-0.120	0.000	0.720	0.000	0.018
308	7.854	4.430	0.000	0.018	8.517	0.871	33.848	0.557	0.831	0.001	0.004	-0.130	0.000	0.720	0.000	0.018
309	7.869	4.420	0.000	0.018	8.535	0.872	33.901	0.558	0.830	0.001	0.004	-0.140	0.000	0.720	0.000	0.017
310	7.884	4.410	0.000	0.018	8.553	0.873	33.954	0.559	0.829	0.001	0.004	-0.150	0.000	0.720	0.000	0.017
311	7.899	4.400	0.000	0.018	8.571	0.875	34.006	0.559	0.829	0.001	0.004	-0.160	0.000	0.720	0.000	0.017
312	7.913	4.390	0.000	0.018	8.589	0.876	34.059	0.560	0.828	0.001	0.004	-0.170	0.000	0.720	0.000	0.017
313	7.928	4.380	0.000	0.018	8.607	0.877	34.111	0.561	0.828	0.001	0.004	-0.180	0.000	0.719	0.000	0.017
314	7.943	4.370	0.000	0.018	8.625	0.879	34.164	0.562	0.827	0.001	0.004	-0.190	0.000	0.719	0.000	0.017
315	7.958	4.360	0.000	0.018	8.642	0.880	34.216	0.562	0.827	0.001	0.004	-0.200	0.000	0.719	0.000	0.017
316	7.972	4.350	0.000	0.018	8.660	0.881	34.268	0.563	0.826	0.001	0.004	-0.210	0.000	0.719	0.000	0.017
317	7.987	4.340	0.000	0.018	8.678	0.883	34.320	0.564	0.826	0.001	0.004	-0.220	0.000	0.719	0.000	0.017
318	8.002	4.330	0.000	0.018	8.696	0.884	34.372	0.565	0.825	0.001	0.004	-0.230	0.000	0.718	0.000	0.017
319	8.016	4.320	0.000	0.018	8.713	0.885	34.424	0.565	0.825	0.001	0.004	-0.240	0.000	0.718	0.000	0.016
320	8.031	4.310	0.000	0.018	8.731	0.887	34.476	0.566	0.824	0.001	0.004	-0.250	0.000	0.718	0.000	0.016
321	8.046	4.300	0.000	0.018	8.749	0.888	34.528	0.567	0.824	0.001	0.004	-0.260	0.000	0.718	0.000	0.016
322	8.060	4.290	0.000	0.018	8.766	0.889	34.580	0.568	0.823	0.001	0.004	-0.270	0.000	0.718	0.000	0.016
323	8.075	4.280	0.000	0.018	8.784	0.891	34.632	0.568	0.823	0.001	0.004	-0.280	0.000	0.717	0.000	0.016
324	8.089	4.270	0.000	0.018	8.801	0.892	34.683	0.569	0.822	0.001	0.004	-0.290	0.000	0.717	0.000	0.016
325	8.104	4.260	0.000	0.018	8.819	0.893	34.735	0.570	0.822	0.001	0.004	-0.300	0.000	0.717	0.000	0.016
326	8.118	4.250	0.000	0.018	8.836	0.895	34.787	0.571	0.821	0.001	0.004	-0.310	0.000	0.717	0.000	0.016
327	8.132	4.240	0.000	0.018	8.854	0.896	34.838	0.571	0.821	0.001	0.004	-0.320	0.000	0.716	0.000	0.016
328	8.147	4.230	0.000	0.017	8.871	0.897	34.889	0.572	0.820	0.001	0.004	-0.330	0.000	0.716	0.000	0.016
329	8.161	4.220	0.000	0.017	8.889	0.899	34.941	0.573	0.820	0.001	0.004	-0.340	0.000	0.716	0.000	0.016
330	8.175	4.210	0.000	0.017	8.906	0.700	34.992	0.573	0.819	0.001	0.004	-0.350	0.000	0.715	0.000	0.015
331	8.190	4.200	0.000	0.017	8.924	0.701	35.043	0.574	0.819	0.001	0.004	-0.360	0.000	0.715	0.000	0.015
332	8.204	4.190	0.000	0.017	8.941	0.703	35.094	0.575	0.818	0.001	0.004	-0.370	0.000	0.715	0.000	0.015
333	8.218	4.180	0.000	0.017	8.959	0.704	35.145	0.576	0.818	0.001	0.004	-0.380	0.000	0.714	0.000	0.015
334	8.232	4.170	0.000	0.017	8.976	0.705	35.196	0.576	0.817	0.001	0.004	-0.390	0.000	0.714	0.000	0.015
335	8.247	4.160	0.000	0.017	8.993	0.707	35.247	0.577	0.817	0.001	0.004	-0.400	0.000	0.714	0.000	0.015
336	8.261	4.150	0.000	0.017	9.010	0.708	35.298	0.578	0.816	0.001	0.004	-0.410	0.000	0.713	0.000	0.015
337	8.275	4.140	0.000	0.017	9.028	0.709	35.349	0.579	0.816	0.001	0.004	-0.420	0.000	0.713	0.000	0.015
338	8.289	4.130	0.000	0.017	9.045	0.711	35.400	0.579	0.815	0.001	0.004	-0.430	0.000	0.713	0.000	0.015
339	8.303	4.120	0.000	0.017	9.062	0.712	35.451	0.580	0.815	0.001	0.004	-0.440	0.000	0.712	0.000	0.015
340	8.317	4.110	0.000	0.017	9.079	0.713	35.501	0.581	0.814	0.001	0.004	-0.450	0.000	0.712	0.000	0.015
341	8.331	4.100	0.000	0.017	9.097	0.715	35.552	0.581	0.814	0.001	0.004	-0.460	0.000	0.711	0.000	0.014
342	8.345	4.090	0.000	0.017	9.114	0.716	35.602	0.582	0.813	0.001	0.004	-0.470	0.000	0.711	0.000	0.014
343	8.359	4.080	0.000	0.017	9.131	0.717	35.653	0.583	0.813	0.001	0.003	-0.480	0.000	0.711	0.000	0.014
344	8.373	4.070	0.000	0.017	9.148	0.719	35.703	0.584	0.812	0.001	0.003	-0.490	0.000	0.710	0.000	0.0

351	8.470	4.000	0.000	0.017	9.268	0.728	36.054	0.589	0.808	0.001	0.003	-0.560	0.000	0.707	0.000	0.014
352	8.484	3.990	0.000	0.017	9.285	0.729	36.104	0.589	0.808	0.001	0.003	-0.570	0.000	0.707	0.000	0.013
353	8.497	3.980	0.000	0.017	9.301	0.731	36.154	0.590	0.807	0.001	0.003	-0.580	0.000	0.706	0.000	0.013
354	8.511	3.970	0.000	0.017	9.318	0.732	36.204	0.591	0.807	0.001	0.003	-0.590	0.000	0.706	0.000	0.013
355	8.525	3.960	0.000	0.017	9.335	0.733	36.253	0.591	0.806	0.001	0.003	-0.600	-0.001	0.705	0.000	0.013
356	8.538	3.950	0.000	0.017	9.352	0.735	36.303	0.592	0.806	0.001	0.003	-0.610	-0.001	0.705	0.000	0.013
357	8.552	3.940	0.000	0.017	9.369	0.736	36.352	0.593	0.805	0.001	0.003	-0.620	-0.001	0.704	0.000	0.013
358	8.565	3.930	0.000	0.017	9.386	0.737	36.402	0.593	0.805	0.001	0.003	-0.630	-0.001	0.703	0.000	0.013
359	8.579	3.920	0.000	0.017	9.403	0.739	36.452	0.594	0.804	0.001	0.003	-0.640	-0.001	0.703	0.000	0.013
360	8.593	3.910	0.000	0.017	9.420	0.740	36.501	0.595	0.804	0.001	0.003	-0.650	-0.001	0.702	0.000	0.013
361	8.606	3.900	0.000	0.017	9.436	0.741	36.550	0.596	0.803	0.001	0.003	-0.660	-0.001	0.702	0.000	0.013
362	8.620	3.890	0.000	0.017	9.453	0.743	36.600	0.596	0.803	0.001	0.003	-0.670	-0.001	0.701	0.000	0.013
363	8.633	3.880	0.000	0.017	9.470	0.744	36.649	0.597	0.802	0.001	0.003	-0.680	-0.001	0.701	0.000	0.013
364	8.646	3.870	0.000	0.017	9.487	0.745	36.698	0.598	0.802	0.001	0.003	-0.690	-0.001	0.700	0.000	0.012
365	8.660	3.860	0.000	0.017	9.503	0.747	36.747	0.598	0.801	0.001	0.003	-0.700	-0.001	0.700	0.000	0.012
366	8.673	3.850	0.000	0.017	9.520	0.748	36.796	0.599	0.801	0.001	0.003	-0.710	-0.001	0.699	0.000	0.012
367	8.687	3.840	0.000	0.017	9.537	0.749	36.845	0.600	0.800	0.001	0.003	-0.720	-0.001	0.698	0.000	0.012
368	8.700	3.830	0.000	0.017	9.553	0.751	36.894	0.600	0.800	0.001	0.003	-0.730	-0.001	0.698	0.000	0.012
369	8.713	3.820	0.000	0.017	9.570	0.752	36.943	0.601	0.799	0.001	0.003	-0.740	-0.001	0.697	0.000	0.012
370	8.727	3.810	0.000	0.017	9.587	0.753	36.992	0.602	0.799	0.001	0.003	-0.750	-0.001	0.697	0.000	0.012
371	8.740	3.800	0.000	0.017	9.603	0.755	37.041	0.602	0.798	0.001	0.003	-0.760	-0.001	0.696	0.000	0.012
372	8.753	3.790	0.000	0.017	9.620	0.756	37.090	0.603	0.798	0.001	0.003	-0.770	-0.001	0.695	0.000	0.012
373	8.766	3.780	0.000	0.017	9.636	0.757	37.138	0.604	0.797	0.001	0.003	-0.780	-0.001	0.695	0.001	0.012
374	8.780	3.770	0.000	0.017	9.653	0.759	37.187	0.604	0.797	0.001	0.003	-0.790	-0.001	0.694	0.001	0.012
375	8.793	3.760	0.000	0.017	9.669	0.760	37.236	0.605	0.796	0.001	0.003	-0.800	-0.001	0.693	0.001	0.012
376	8.806	3.750	0.000	0.017	9.686	0.761	37.284	0.606	0.796	0.001	0.003	-0.810	-0.001	0.693	0.001	0.012
377	8.819	3.740	0.000	0.016	9.702	0.763	37.333	0.606	0.795	0.001	0.003	-0.820	-0.001	0.692	0.001	0.012
378	8.832	3.730	0.000	0.016	9.719	0.764	37.381	0.607	0.795	0.001	0.003	-0.830	-0.001	0.691	0.001	0.011
379	8.845	3.720	0.000	0.016	9.735	0.765	37.429	0.608	0.794	0.001	0.003	-0.840	-0.001	0.691	0.001	0.011
380	8.858	3.710	0.000	0.016	9.752	0.767	37.478	0.608	0.794	0.001	0.003	-0.850	-0.001	0.690	0.001	0.011
381	8.871	3.700	0.000	0.016	9.768	0.768	37.526	0.609	0.793	0.001	0.003	-0.860	-0.001	0.689	0.001	0.011
382	8.884	3.690	0.000	0.016	9.785	0.769	37.574	0.610	0.793	0.001	0.003	-0.870	-0.001	0.688	0.001	0.011
383	8.897	3.680	0.000	0.016	9.801	0.771	37.622	0.610	0.792	0.001	0.003	-0.880	-0.001	0.688	0.001	0.011
384	8.910	3.670	0.000	0.016	9.817	0.772	37.670	0.611	0.792	0.001	0.003	-0.890	-0.001	0.687	0.001	0.011
385	8.923	3.660	0.000	0.016	9.834	0.773	37.718	0.612	0.791	0.001	0.003	-0.900	-0.001	0.686	0.001	0.011
386	8.936	3.650	0.000	0.016	9.850	0.775	37.766	0.612	0.791	0.001	0.003	-0.910	-0.001	0.686	0.001	0.011
387	8.949	3.640	0.000	0.016	9.866	0.776	37.814	0.613	0.790	0.001	0.003	-0.920	-0.001	0.685	0.001	0.011
388	8.962	3.630	0.000	0.016	9.883	0.777	37.862	0.614	0.789	0.001	0.003	-0.930	-0.001	0.684	0.001	0.011
389	8.975	3.620	0.000	0.016	9.899	0.779	37.910	0.614	0.789	0.001	0.003	-0.940	-0.001	0.683	0.001	0.011
390	8.988	3.610	0.000	0.016	9.915	0.780	37.958	0.615	0.788	0.001	0.003	-0.950	-0.001	0.682	0.001	0.011
391	9.001	3.600	0.000	0.016	9.931	0.781	38.006	0.616	0.788	0.001	0.003	-0.960	-0.001	0.682	0.001	0.010
392	9.013	3.590	0.000	0.016	9.948	0.783	38.053	0.616	0.787	0.001	0.003	-0.970	-0.001	0.681	0.001	0.010
393	9.026	3.580	0.000	0.016	9.964	0.784	38.101	0.617	0.787	0.001	0.003	-0.980	-0.001	0.680	0.001	0.010
394	9.039	3.570	0.000	0.016	9.980	0.785	38.149	0.618	0.786	0.001	0.003	-0.990	-0.001	0.679	0.001	0.010
395	9.052	3.560	0.000	0.016	9.996	0.787	38.196	0.618	0.786	0.001	0.003	-1.000	-0.001	0.678	0.001	0.010
396	9.064	3.550	0.000	0.016	10.012	0.788	38.244	0.619	0.785	0.001	0.003	-1.010	-0.001	0.678	0.001	0.010
397	9.077	3.540	0.000	0.016	10.028	0.790	38.291	0.620	0.785	0.001	0.003	-1.020	-0.001	0.677	0.001	0.010
398	9.090	3.530	0.000	0.016	10.045	0.791	38.338	0.620	0.784	0.001	0.003	-1.030	-0.001	0.676	0.001	0.010
399	9.102	3.520	0.000	0.016	10.061	0.792	38.386	0.621	0.784	0.001	0.003	-1.040	-0.001	0.675	0.001	0.010
400	9.115	3.510	0.000	0.016	10.077	0.794	38.433	0.622	0.783	0.001	0.003	-1.050	-0.001	0.674	0.001	0.010
401	9.128	3.500	0.000	0.016	10.093	0.795	38.480	0.622	0.783	0.001	0.003	-1.060	-0.001	0.673	0.001	0.010
402	9.140	3.490	0.000	0.016	10.109	0.796	38.528	0.623	0.782	0.001	0.003	-1.070	-0.001	0.673	0.001	0.010
403	9.153	3.480	0.000	0.016	10.125	0.798	38.575	0.624	0.782	0.001	0.003	-1.080	-0.001	0.672	0.001	0.010
404	9.165	3.470	0.000	0.016	10.141	0.799	38.622	0.624	0.781	0.001	0.003	-1.090	-0.001	0.671	0.001	0.010
405	9.178	3.460	0.000	0.016	10.157	0.800	38.669	0.625	0.781	0.001	0.003	-1.100	-0.001	0.670	0.001	0.010
406	9.190	3.450	0.000	0.016	10.173	0.802	38.716	0.625	0.780	0.001	0.003	-1.110	-0.001	0.669	0.001	0.009
407	9.203	3.440	0.000	0.016	10.189	0.803	38.763	0.626	0.780	0.001	0.003	-1.120	-0.001	0.668	0.001	0.009
408	9.215	3.430	0.000	0.016	10.205	0.804	38.810	0.627	0.779	0.001	0.003	-1.130	-0.001	0.667	0.001	0.009
409	9.228	3.420	0.000	0.016	10.221	0.806	38.857	0.627	0.779	0.001	0.003	-1.140	-0.001	0.666	0.001	0.009
410	9.240	3.410	0.000	0.016	10.237	0.807	38.903	0.628	0.778	0.001	0.003	-1.150	-0.001	0.665	0.001	0.009
411	9.252	3.400	0.000	0.016	10.253	0.808	38.950	0.629	0.778	0.001	0.003	-1.160	-0.001	0.665	0.001	0.009
412	9.265	3.390	0.000	0.016	10.269	0.810	38.997	0.629	0.777	0.001	0.003	-1.170	-0.001	0.664	0.001	0.009
413	9.277	3.380	0.000	0.016	10.284	0.811	39.044	0.630	0.777	0.001	0.003	-1.180	-0.001	0.663	0.001	0.009
414	9.289	3.370	0.000	0.016	10.300	0.812	39.090	0.631	0.776	0.001	0.003	-1.190	-0.001	0.662	0.001	0.009
415	9.302	3.360	0.000	0.016	10.316	0.814	39.137	0.631	0.776	0.001	0.003	-1.200	-0.001	0.661	0.001	0.009
416	9.314	3.350	0.000	0.016	10.332	0.815	39.183	0.632	0.775	0.001	0.003	-1.210	-0.001	0.660	0.001	0.009
417	9.326	3.340	0.000	0.016	10.348	0.816	39.230	0.632	0.775	0.001	0.003	-1.220	-0.001	0.659	0.001	0.009
418	9.339	3.330	0.000	0.016	10.364	0.818	39.276	0.633	0.774	0.001	0.003	-1.230	-0.001	0.658	0.001	0.009
419	9.351	3.320	0.000	0.016	10.379	0.819	39.323	0.634	0.774	0.001	0.003	-1.240	-0.001	0.657	0.001	0.009
420	9.363	3.310	0.000	0.016	10.395	0.821	39.369	0.634	0.773	0.001	0.003	-1.250	-0.001	0.656	0.001	0.009
421	9.375	3.300	0.000	0.016	10.411	0.822	39.415	0.635	0.773	0.001	0.003	-1.260	-0.001			

428	9.460	3.230	0.000	0.016	10.521	0.831	39.738	0.839	0.769	0.001	0.003	-1.330	-0.001	0.648	0.001	0.008
429	9.472	3.220	0.000	0.016	10.536	0.833	39.784	0.840	0.768	0.001	0.003	-1.340	-0.001	0.647	0.001	0.008
430	9.484	3.210	0.000	0.016	10.552	0.834	39.830	0.841	0.768	0.001	0.003	-1.350	-0.001	0.646	0.001	0.008
431	9.496	3.200	0.000	0.016	10.568	0.835	39.876	0.841	0.767	0.001	0.002	-1.360	-0.001	0.645	0.001	0.008
432	9.508	3.190	0.000	0.016	10.583	0.837	39.922	0.842	0.767	0.001	0.002	-1.370	-0.001	0.644	0.001	0.008
433	9.520	3.180	0.000	0.016	10.599	0.838	39.967	0.842	0.766	0.001	0.002	-1.380	-0.001	0.643	0.001	0.008
434	9.532	3.170	0.000	0.016	10.614	0.839	40.013	0.843	0.766	0.001	0.002	-1.390	-0.001	0.641	0.002	0.008
435	9.544	3.160	0.000	0.016	10.630	0.841	40.059	0.844	0.765	0.001	0.002	-1.400	-0.001	0.640	0.002	0.008
436	9.556	3.150	0.000	0.016	10.645	0.842	40.104	0.844	0.765	0.001	0.002	-1.410	-0.001	0.639	0.002	0.008
437	9.567	3.140	0.000	0.016	10.661	0.844	40.150	0.845	0.764	0.001	0.002	-1.420	-0.001	0.638	0.002	0.008
438	9.579	3.130	0.000	0.015	10.676	0.845	40.195	0.845	0.764	0.001	0.002	-1.430	-0.001	0.637	0.002	0.008
439	9.591	3.120	0.000	0.015	10.692	0.846	40.241	0.846	0.763	0.001	0.002	-1.440	-0.001	0.636	0.002	0.008
440	9.603	3.110	0.000	0.015	10.707	0.848	40.286	0.847	0.763	0.001	0.002	-1.450	-0.001	0.635	0.002	0.007
441	9.615	3.100	0.000	0.015	10.723	0.849	40.332	0.847	0.762	0.001	0.002	-1.460	-0.001	0.634	0.002	0.007
442	9.627	3.090	0.000	0.015	10.738	0.850	40.377	0.848	0.762	0.001	0.002	-1.470	-0.001	0.633	0.002	0.007
443	9.638	3.080	0.000	0.015	10.754	0.852	40.423	0.848	0.761	0.001	0.002	-1.480	-0.001	0.631	0.002	0.007
444	9.650	3.070	0.000	0.015	10.769	0.853	40.468	0.849	0.761	0.001	0.002	-1.490	-0.001	0.630	0.002	0.007
445	9.662	3.060	0.000	0.015	10.784	0.854	40.513	0.850	0.760	0.001	0.002	-1.500	-0.001	0.629	0.002	0.007
446	9.673	3.050	0.000	0.015	10.800	0.856	40.558	0.850	0.760	0.001	0.002	-1.510	-0.001	0.628	0.002	0.007
447	9.685	3.040	0.000	0.015	10.815	0.857	40.603	0.851	0.759	0.001	0.002	-1.520	-0.001	0.627	0.002	0.007
448	9.697	3.030	0.000	0.015	10.830	0.859	40.649	0.851	0.759	0.001	0.002	-1.530	-0.001	0.626	0.002	0.007
449	9.708	3.020	0.000	0.015	10.846	0.860	40.694	0.852	0.758	0.001	0.002	-1.540	-0.001	0.624	0.002	0.007
450	9.720	3.010	0.000	0.015	10.861	0.861	40.739	0.853	0.758	0.001	0.002	-1.550	-0.001	0.623	0.002	0.007
451	9.732	3.000	0.000	0.015	10.876	0.863	40.784	0.853	0.757	0.001	0.002	-1.560	-0.001	0.622	0.002	0.007
452	9.743	2.990	0.000	0.015	10.892	0.864	40.829	0.854	0.757	0.001	0.002	-1.570	-0.001	0.621	0.002	0.007
453	9.755	2.980	0.000	0.015	10.907	0.865	40.874	0.854	0.756	0.001	0.002	-1.580	-0.001	0.620	0.002	0.007
454	9.766	2.970	0.000	0.015	10.922	0.867	40.918	0.855	0.756	0.001	0.002	-1.590	-0.001	0.618	0.002	0.007
455	9.778	2.960	0.000	0.015	10.937	0.868	40.963	0.856	0.755	0.001	0.002	-1.600	-0.001	0.617	0.002	0.007
456	9.790	2.950	0.000	0.015	10.953	0.870	41.008	0.856	0.755	0.001	0.002	-1.610	-0.001	0.616	0.002	0.007
457	9.801	2.940	0.000	0.015	10.968	0.871	41.053	0.857	0.754	0.001	0.002	-1.620	-0.001	0.615	0.002	0.007
458	9.812	2.930	0.000	0.015	10.983	0.872	41.098	0.857	0.754	0.001	0.002	-1.630	-0.001	0.613	0.002	0.007
459	9.824	2.920	0.000	0.015	10.998	0.874	41.142	0.858	0.753	0.001	0.002	-1.640	-0.001	0.612	0.002	0.006
460	9.835	2.910	0.000	0.015	11.014	0.875	41.187	0.859	0.753	0.001	0.002	-1.650	-0.001	0.611	0.002	0.006
461	9.847	2.900	0.000	0.015	11.029	0.876	41.232	0.859	0.752	0.001	0.002	-1.660	-0.001	0.610	0.002	0.006
462	9.858	2.890	0.000	0.015	11.044	0.878	41.276	0.860	0.752	0.001	0.002	-1.670	-0.001	0.608	0.002	0.006
463	9.870	2.880	0.000	0.015	11.059	0.879	41.321	0.860	0.751	0.001	0.002	-1.680	-0.001	0.607	0.002	0.006
464	9.881	2.870	0.000	0.015	11.074	0.881	41.365	0.861	0.751	0.001	0.002	-1.690	-0.001	0.606	0.002	0.006
465	9.892	2.860	0.000	0.015	11.089	0.882	41.410	0.861	0.750	0.001	0.002	-1.700	-0.001	0.605	0.002	0.006
466	9.904	2.850	0.000	0.015	11.104	0.883	41.454	0.862	0.749	0.001	0.002	-1.710	-0.001	0.603	0.002	0.006
467	9.915	2.840	0.000	0.015	11.119	0.885	41.498	0.863	0.749	0.001	0.002	-1.720	-0.001	0.602	0.002	0.006
468	9.926	2.830	0.000	0.015	11.135	0.886	41.543	0.863	0.748	0.001	0.002	-1.730	-0.001	0.601	0.002	0.006
469	9.938	2.820	0.000	0.015	11.150	0.887	41.587	0.864	0.748	0.001	0.002	-1.740	-0.001	0.599	0.002	0.006
470	9.949	2.810	0.000	0.015	11.165	0.889	41.631	0.864	0.747	0.001	0.002	-1.750	-0.001	0.598	0.002	0.006
471	9.960	2.800	0.000	0.015	11.180	0.890	41.675	0.865	0.747	0.001	0.002	-1.760	-0.001	0.597	0.002	0.006
472	9.971	2.790	0.000	0.015	11.195	0.892	41.720	0.865	0.746	0.001	0.002	-1.770	-0.001	0.595	0.002	0.006
473	9.983	2.780	0.000	0.015	11.210	0.893	41.764	0.866	0.746	0.001	0.002	-1.780	-0.001	0.594	0.002	0.006
474	9.994	2.770	0.000	0.015	11.225	0.894	41.808	0.867	0.745	0.001	0.002	-1.790	-0.001	0.593	0.002	0.006
475	10.005	2.760	0.000	0.015	11.240	0.896	41.852	0.867	0.745	0.001	0.002	-1.800	-0.001	0.591	0.002	0.006
476	10.016	2.750	0.000	0.015	11.255	0.897	41.896	0.868	0.744	0.001	0.002	-1.810	-0.001	0.590	0.002	0.006
477	10.027	2.740	0.000	0.015	11.270	0.899	41.940	0.868	0.744	0.001	0.002	-1.820	-0.001	0.589	0.002	0.006
478	10.038	2.730	0.000	0.015	11.285	0.900	41.984	0.869	0.743	0.001	0.002	-1.830	-0.001	0.587	0.003	0.006
479	10.050	2.720	0.000	0.015	11.300	0.901	42.028	0.869	0.743	0.001	0.002	-1.840	-0.001	0.586	0.003	0.006
480	10.061	2.710	0.000	0.015	11.315	0.903	42.072	0.870	0.742	0.001	0.002	-1.850	-0.001	0.585	0.003	0.005
481	10.072	2.700	0.000	0.015	11.329	0.904	42.115	0.871	0.742	0.001	0.002	-1.860	-0.001	0.583	0.003	0.005
482	10.083	2.690	0.000	0.015	11.344	0.905	42.159	0.871	0.741	0.001	0.002	-1.870	-0.001	0.582	0.003	0.005
483	10.094	2.680	0.000	0.015	11.359	0.907	42.203	0.872	0.741	0.001	0.002	-1.880	-0.001	0.580	0.003	0.005
484	10.105	2.670	0.000	0.015	11.374	0.908	42.247	0.872	0.740	0.001	0.002	-1.890	-0.001	0.579	0.003	0.005
485	10.116	2.660	0.000	0.015	11.389	0.910	42.290	0.873	0.740	0.001	0.002	-1.900	-0.001	0.578	0.003	0.005
486	10.127	2.650	0.000	0.015	11.404	0.911	42.334	0.873	0.739	0.001	0.002	-1.910	-0.001	0.576	0.003	0.005
487	10.138	2.640	0.000	0.015	11.419	0.912	42.378	0.874	0.739	0.001	0.002	-1.920	-0.001	0.575	0.003	0.005
488	10.149	2.630	0.000	0.015	11.433	0.914	42.421	0.875	0.738	0.001	0.002	-1.930	-0.001	0.573	0.003	0.005
489	10.160	2.620	0.000	0.015	11.448	0.915	42.465	0.875	0.738	0.001	0.002	-1.940	-0.001	0.572	0.003	0.005
490	10.171	2.610	0.000	0.015	11.463	0.917	42.508	0.876	0.737	0.001	0.002	-1.950	-0.001	0.570	0.003	0.005
491	10.182	2.600	0.000	0.015	11.478	0.918	42.552	0.876	0.737	0.001	0.002	-1.960	-0.001	0.569	0.003	0.005
492	10.192	2.590	0.000	0.015	11.493	0.919	42.595	0.877	0.736	0.001	0.002	-1.970	-0.001	0.568	0.003	0.005
493	10.203	2.580	0.000	0.015	11.507	0.921	42.638	0.877	0.736	0.001	0.002	-1.980	-0.001	0.566	0.003	0.005
494	10.214	2.570	0.000	0.015	11.522	0.922	42.682	0.878	0.735	0.001	0.002	-1.990	-0.001	0.565	0.003	0.005
495	10.225	2.560	0.000	0.015	11.537	0.924	42.725	0.878	0.735	0.001	0.002	-2.000	-0.001	0.563	0.003	0.005
496	10.236	2.550	0.000	0.015	11.552	0.925	42.768	0.879	0.734	0.001	0.002	-2.010	-0.001	0.562	0.003	0.005
497	10.247	2.540	0.000	0.015	11.566	0.926	42.812	0.880	0.734	0.001	0.002	-2.020	-0.001	0.560	0.003	0.005
498	10.257	2.530	0.000	0.015	11.581	0.928										

505	10.333	2.460	0.000	0.015	11.684	0.938	43.156	0.684	0.729	0.001	0.002	-2.100	-0.002	0.548	0.003	0.004
506	10.343	2.450	0.000	0.015	11.698	0.939	43.199	0.685	0.729	0.001	0.002	-2.110	-0.002	0.546	0.003	0.004
507	10.354	2.440	0.000	0.015	11.713	0.940	43.242	0.685	0.728	0.001	0.002	-2.120	-0.002	0.545	0.003	0.004
508	10.365	2.430	0.000	0.015	11.727	0.942	43.285	0.686	0.728	0.001	0.002	-2.130	-0.002	0.543	0.003	0.004
509	10.375	2.420	0.000	0.015	11.742	0.943	43.328	0.686	0.727	0.001	0.002	-2.140	-0.002	0.542	0.003	0.004
510	10.386	2.410	0.000	0.015	11.757	0.945	43.371	0.687	0.727	0.001	0.002	-2.150	-0.002	0.540	0.003	0.004
511	10.396	2.400	0.000	0.015	11.771	0.946	43.414	0.687	0.726	0.001	0.002	-2.160	-0.002	0.539	0.003	0.004
512	10.407	2.390	0.000	0.015	11.786	0.948	43.456	0.688	0.726	0.001	0.002	-2.170	-0.002	0.537	0.003	0.004
513	10.417	2.380	0.000	0.015	11.800	0.949	43.499	0.688	0.725	0.001	0.002	-2.180	-0.002	0.536	0.003	0.004
514	10.428	2.370	0.000	0.015	11.815	0.950	43.542	0.689	0.725	0.001	0.002	-2.190	-0.002	0.534	0.003	0.004
515	10.438	2.360	0.000	0.015	11.829	0.952	43.584	0.689	0.724	0.001	0.002	-2.200	-0.002	0.532	0.004	0.004
516	10.449	2.350	0.000	0.014	11.844	0.953	43.627	0.690	0.724	0.001	0.002	-2.210	-0.002	0.531	0.004	0.004
517	10.459	2.340	0.000	0.014	11.858	0.955	43.670	0.690	0.723	0.001	0.002	-2.220	-0.002	0.529	0.004	0.004
518	10.470	2.330	0.000	0.014	11.873	0.956	43.712	0.691	0.723	0.001	0.002	-2.230	-0.002	0.528	0.004	0.004
519	10.480	2.320	0.000	0.014	11.887	0.957	43.755	0.692	0.722	0.001	0.002	-2.240	-0.002	0.526	0.004	0.004
520	10.491	2.310	0.000	0.014	11.902	0.959	43.797	0.692	0.722	0.001	0.002	-2.250	-0.002	0.524	0.004	0.004
521	10.501	2.300	0.000	0.014	11.916	0.960	43.839	0.693	0.721	0.001	0.002	-2.260	-0.002	0.523	0.004	0.004
522	10.512	2.290	0.000	0.014	11.930	0.962	43.882	0.693	0.721	0.001	0.002	-2.270	-0.002	0.521	0.004	0.004
523	10.522	2.280	0.000	0.014	11.945	0.963	43.924	0.694	0.720	0.001	0.002	-2.280	-0.002	0.519	0.004	0.004
524	10.532	2.270	0.000	0.014	11.959	0.965	43.967	0.694	0.720	0.001	0.002	-2.290	-0.002	0.518	0.004	0.004
525	10.543	2.260	0.000	0.014	11.974	0.966	44.009	0.695	0.719	0.001	0.002	-2.300	-0.002	0.516	0.004	0.004
526	10.553	2.250	0.000	0.014	11.988	0.967	44.051	0.695	0.719	0.001	0.002	-2.310	-0.002	0.514	0.004	0.004
527	10.564	2.240	0.000	0.014	12.002	0.969	44.093	0.696	0.718	0.001	0.002	-2.320	-0.002	0.513	0.004	0.004
528	10.574	2.230	0.000	0.014	12.017	0.970	44.136	0.696	0.718	0.001	0.002	-2.330	-0.002	0.511	0.004	0.004
529	10.584	2.220	0.000	0.014	12.031	0.972	44.178	0.697	0.717	0.001	0.002	-2.340	-0.002	0.509	0.004	0.004
530	10.594	2.210	0.000	0.014	12.045	0.973	44.220	0.697	0.717	0.001	0.002	-2.350	-0.002	0.508	0.004	0.003
531	10.605	2.200	0.000	0.014	12.060	0.975	44.262	0.698	0.716	0.001	0.002	-2.360	-0.002	0.506	0.004	0.003
532	10.615	2.190	0.000	0.014	12.074	0.976	44.304	0.698	0.716	0.001	0.002	-2.370	-0.002	0.504	0.004	0.003
533	10.625	2.180	0.000	0.014	12.088	0.977	44.346	0.699	0.715	0.001	0.002	-2.380	-0.002	0.503	0.004	0.003
534	10.635	2.170	0.000	0.014	12.103	0.979	44.388	0.700	0.715	0.001	0.002	-2.390	-0.002	0.501	0.004	0.003
535	10.646	2.160	0.000	0.014	12.117	0.980	44.430	0.700	0.714	0.001	0.002	-2.400	-0.002	0.499	0.004	0.003
536	10.656	2.150	0.000	0.014	12.131	0.982	44.472	0.701	0.714	0.001	0.002	-2.410	-0.002	0.497	0.004	0.003
537	10.666	2.140	0.000	0.014	12.145	0.983	44.514	0.701	0.713	0.001	0.002	-2.420	-0.002	0.496	0.004	0.003
538	10.676	2.130	0.000	0.014	12.160	0.985	44.556	0.702	0.713	0.001	0.002	-2.430	-0.002	0.494	0.004	0.003
539	10.686	2.120	0.000	0.014	12.174	0.986	44.598	0.702	0.712	0.001	0.002	-2.440	-0.002	0.492	0.004	0.003
540	10.697	2.110	0.000	0.014	12.188	0.988	44.640	0.703	0.712	0.001	0.001	-2.450	-0.002	0.491	0.004	0.003
541	10.707	2.100	0.000	0.014	12.202	0.989	44.681	0.703	0.711	0.001	0.001	-2.460	-0.002	0.489	0.004	0.003
542	10.717	2.090	0.000	0.014	12.217	0.990	44.723	0.704	0.711	0.001	0.001	-2.470	-0.002	0.487	0.004	0.003
543	10.727	2.080	0.000	0.014	12.231	0.992	44.765	0.704	0.710	0.001	0.001	-2.480	-0.002	0.485	0.004	0.003
544	10.737	2.070	0.000	0.014	12.245	0.993	44.807	0.705	0.709	0.001	0.001	-2.490	-0.002	0.483	0.004	0.003
545	10.747	2.060	0.000	0.014	12.259	0.995	44.848	0.705	0.709	0.001	0.001	-2.500	-0.002	0.482	0.004	0.003
546	10.757	2.050	0.000	0.014	12.273	0.996	44.890	0.706	0.708	0.001	0.001	-2.510	-0.002	0.480	0.004	0.003
547	10.767	2.040	0.000	0.014	12.288	0.998	44.932	0.706	0.708	0.001	0.001	-2.520	-0.002	0.478	0.004	0.003
548	10.777	2.030	0.000	0.014	12.302	0.999	44.973	0.707	0.707	0.001	0.001	-2.530	-0.002	0.476	0.005	0.003
549	10.787	2.020	0.000	0.014	12.316	1.001	45.015	0.707	0.707	0.001	0.001	-2.540	-0.002	0.475	0.005	0.003
550	10.797	2.010	0.000	0.014	12.330	1.002	45.056	0.708	0.706	0.001	0.001	-2.550	-0.002	0.473	0.005	0.003
551	10.807	2.000	0.000	0.014	12.344	1.003	45.098	0.708	0.706	0.001	0.001	-2.560	-0.002	0.471	0.005	0.003
552	10.817	1.990	0.000	0.014	12.358	1.005	45.139	0.709	0.705	0.001	0.001	-2.570	-0.002	0.469	0.005	0.003
553	10.827	1.980	0.000	0.014	12.372	1.006	45.181	0.709	0.705	0.001	0.001	-2.580	-0.002	0.467	0.005	0.003
554	10.837	1.970	0.000	0.014	12.386	1.008	45.222	0.710	0.704	0.001	0.001	-2.590	-0.002	0.466	0.005	0.003
555	10.847	1.960	0.000	0.014	12.400	1.009	45.263	0.710	0.704	0.001	0.001	-2.600	-0.002	0.464	0.005	0.003
556	10.857	1.950	0.000	0.014	12.414	1.011	45.305	0.711	0.703	0.001	0.001	-2.610	-0.002	0.462	0.005	0.003
557	10.867	1.940	0.000	0.014	12.429	1.012	45.346	0.711	0.703	0.001	0.001	-2.620	-0.002	0.460	0.005	0.003
558	10.877	1.930	0.000	0.014	12.443	1.014	45.387	0.712	0.702	0.001	0.001	-2.630	-0.002	0.458	0.005	0.003
559	10.886	1.920	0.000	0.014	12.457	1.015	45.429	0.712	0.702	0.001	0.001	-2.640	-0.002	0.456	0.005	0.003
560	10.896	1.910	0.000	0.014	12.471	1.017	45.470	0.713	0.701	0.001	0.001	-2.650	-0.002	0.454	0.005	0.003
561	10.906	1.900	0.000	0.014	12.485	1.018	45.511	0.713	0.701	0.001	0.001	-2.660	-0.002	0.453	0.005	0.003
562	10.916	1.890	0.000	0.014	12.499	1.019	45.552	0.714	0.700	0.001	0.001	-2.670	-0.002	0.451	0.005	0.002
563	10.926	1.880	0.000	0.014	12.513	1.021	45.593	0.714	0.700	0.001	0.001	-2.680	-0.002	0.449	0.005	0.002
564	10.936	1.870	0.000	0.014	12.527	1.022	45.635	0.715	0.699	0.001	0.001	-2.690	-0.002	0.447	0.005	0.002
565	10.945	1.860	0.000	0.014	12.541	1.024	45.676	0.715	0.699	0.001	0.001	-2.700	-0.002	0.445	0.005	0.002
566	10.955	1.850	0.000	0.014	12.555	1.025	45.717	0.716	0.698	0.001	0.001	-2.710	-0.002	0.443	0.005	0.002
567	10.965	1.840	0.000	0.014	12.569	1.027	45.758	0.716	0.698	0.001	0.001	-2.720	-0.002	0.441	0.005	0.002
568	10.975	1.830	0.000	0.014	12.583	1.028	45.799	0.717	0.697	0.001	0.001	-2.730	-0.002	0.439	0.005	0.002
569	10.984	1.820	0.000	0.014	12.596	1.030	45.840	0.717	0.697	0.001	0.001	-2.740	-0.002	0.437	0.005	0.002
570	10.994	1.810	0.000	0.014	12.610	1.031	45.881	0.718	0.696	0.001	0.001	-2.750	-0.002	0.436	0.005	0.002
571	11.004	1.800	0.000	0.014	12.624	1.033	45.922	0.718	0.696	0.001	0.001	-2.760	-0.002	0.434	0.005	0.002
572	11.013	1.790	0.000	0.014	12.638	1.034	45.962	0.719	0.695	0.001	0.001	-2.770	-0.002	0.432	0.005	0.002
573	11.023	1.780	0.000	0.014	12.652	1.036	46.003	0.719	0.695	0.001	0.001	-2.780	-0.002	0.430	0.005	0.002
574	11.033	1.770	0.000	0.014	12.666	1.037	46.044	0.720	0.694	0.001	0.001	-2.790	-0.002	0.428	0.005	0.002
575	11.042	1.7														

582	11.110	1.890	0.000	0.014	12.777	1.049	46.370	0.724	0.890	0.001	0.001	-2.870	-0.002	0.412	0.006	0.002
583	11.119	1.880	0.000	0.014	12.791	1.050	46.410	0.724	0.889	0.001	0.001	-2.880	-0.002	0.410	0.006	0.002
584	11.129	1.870	0.000	0.014	12.804	1.052	46.451	0.725	0.889	0.001	0.001	-2.890	-0.002	0.408	0.006	0.002
585	11.138	1.860	0.000	0.014	12.818	1.053	46.491	0.725	0.888	0.001	0.001	-2.900	-0.002	0.406	0.006	0.002
586	11.148	1.850	0.000	0.014	12.832	1.055	46.532	0.726	0.888	0.001	0.001	-2.910	-0.002	0.404	0.006	0.002
587	11.157	1.840	0.000	0.014	12.846	1.056	46.572	0.726	0.887	0.001	0.001	-2.920	-0.002	0.402	0.006	0.002
588	11.167	1.830	0.000	0.014	12.860	1.058	46.613	0.727	0.887	0.001	0.001	-2.930	-0.002	0.400	0.006	0.002
589	11.176	1.820	0.000	0.014	12.873	1.059	46.653	0.727	0.886	0.001	0.001	-2.940	-0.002	0.398	0.006	0.002
590	11.185	1.810	0.000	0.014	12.887	1.061	46.694	0.728	0.886	0.001	0.001	-2.950	-0.002	0.396	0.006	0.002
591	11.195	1.800	0.000	0.014	12.901	1.062	46.734	0.728	0.885	0.001	0.001	-2.960	-0.002	0.394	0.006	0.002
592	11.204	1.590	0.000	0.014	12.914	1.064	46.774	0.729	0.885	0.001	0.001	-2.970	-0.002	0.392	0.006	0.002
593	11.214	1.580	0.000	0.014	12.928	1.065	46.815	0.729	0.884	0.001	0.001	-2.980	-0.002	0.390	0.006	0.002
594	11.223	1.570	0.000	0.014	12.942	1.067	46.855	0.730	0.884	0.001	0.001	-2.990	-0.002	0.388	0.006	0.002
595	11.232	1.560	0.000	0.014	12.956	1.068	46.895	0.730	0.883	0.001	0.001	-3.000	-0.002	0.386	0.006	0.002
596	11.242	1.550	0.000	0.014	12.969	1.070	46.935	0.731	0.883	0.001	0.001	-3.010	-0.002	0.384	0.006	0.002
597	11.251	1.540	0.000	0.014	12.983	1.071	46.976	0.731	0.882	0.001	0.001	-3.020	-0.002	0.382	0.006	0.002
598	11.260	1.530	0.000	0.014	12.997	1.073	47.016	0.732	0.882	0.001	0.001	-3.030	-0.002	0.380	0.006	0.002
599	11.270	1.520	0.000	0.014	13.010	1.074	47.056	0.732	0.881	0.001	0.001	-3.040	-0.002	0.378	0.006	0.002
600	11.279	1.510	0.000	0.014	13.024	1.076	47.096	0.732	0.881	0.001	0.001	-3.050	-0.002	0.375	0.006	0.002
601	11.288	1.500	0.000	0.014	13.038	1.077	47.136	0.733	0.880	0.001	0.001	-3.060	-0.002	0.373	0.006	0.002
602	11.298	1.490	0.000	0.014	13.051	1.079	47.176	0.733	0.880	0.001	0.001	-3.070	-0.002	0.371	0.006	0.002
603	11.307	1.480	0.000	0.014	13.065	1.081	47.216	0.734	0.879	0.001	0.001	-3.080	-0.002	0.369	0.006	0.001
604	11.316	1.470	0.000	0.014	13.078	1.082	47.256	0.734	0.879	0.001	0.001	-3.090	-0.002	0.367	0.007	0.001
605	11.325	1.460	0.000	0.014	13.092	1.084	47.296	0.735	0.878	0.001	0.001	-3.100	-0.002	0.365	0.007	0.001
606	11.335	1.450	0.000	0.014	13.106	1.085	47.336	0.735	0.878	0.001	0.001	-3.110	-0.002	0.363	0.007	0.001
607	11.344	1.440	0.000	0.014	13.119	1.087	47.376	0.736	0.877	0.001	0.001	-3.120	-0.002	0.361	0.007	0.001
608	11.353	1.430	0.000	0.014	13.133	1.088	47.416	0.736	0.877	0.001	0.001	-3.130	-0.002	0.359	0.007	0.001
609	11.362	1.420	0.000	0.014	13.146	1.090	47.456	0.737	0.876	0.001	0.001	-3.140	-0.002	0.356	0.007	0.001
610	11.371	1.410	0.000	0.014	13.160	1.091	47.496	0.737	0.876	0.001	0.001	-3.150	-0.002	0.354	0.007	0.001
611	11.381	1.400	0.000	0.014	13.174	1.093	47.536	0.738	0.875	0.001	0.001	-3.160	-0.002	0.352	0.007	0.001
612	11.390	1.390	0.000	0.014	13.187	1.094	47.576	0.738	0.875	0.001	0.001	-3.170	-0.002	0.350	0.007	0.001
613	11.399	1.380	0.000	0.014	13.201	1.096	47.615	0.739	0.874	0.001	0.001	-3.180	-0.002	0.348	0.007	0.001
614	11.408	1.370	0.000	0.014	13.214	1.097	47.655	0.739	0.874	0.001	0.001	-3.190	-0.002	0.346	0.007	0.001
615	11.417	1.360	0.000	0.014	13.228	1.099	47.695	0.740	0.873	0.001	0.001	-3.200	-0.002	0.344	0.007	0.001
616	11.426	1.350	0.000	0.014	13.241	1.100	47.735	0.740	0.873	0.001	0.001	-3.210	-0.002	0.341	0.007	0.001
617	11.435	1.340	0.000	0.014	13.255	1.102	47.774	0.741	0.872	0.001	0.001	-3.220	-0.002	0.339	0.007	0.001
618	11.444	1.330	0.000	0.013	13.268	1.103	47.814	0.741	0.872	0.001	0.001	-3.230	-0.002	0.337	0.007	0.001
619	11.453	1.320	0.000	0.013	13.282	1.105	47.854	0.741	0.871	0.001	0.001	-3.240	-0.002	0.335	0.007	0.001
620	11.462	1.310	0.000	0.013	13.295	1.106	47.893	0.742	0.871	0.001	0.001	-3.250	-0.002	0.333	0.007	0.001
621	11.472	1.300	0.000	0.013	13.309	1.108	47.933	0.742	0.870	0.001	0.001	-3.260	-0.002	0.330	0.007	0.001
622	11.481	1.290	0.000	0.013	13.322	1.110	47.972	0.743	0.869	0.001	0.001	-3.270	-0.002	0.328	0.007	0.001
623	11.490	1.280	0.000	0.013	13.336	1.111	48.012	0.743	0.869	0.001	0.001	-3.280	-0.002	0.326	0.007	0.001
624	11.499	1.270	0.000	0.013	13.349	1.113	48.051	0.744	0.868	0.001	0.001	-3.290	-0.002	0.324	0.007	0.001
625	11.508	1.260	0.000	0.013	13.362	1.114	48.091	0.744	0.868	0.001	0.001	-3.300	-0.002	0.322	0.007	0.001
626	11.517	1.250	0.000	0.013	13.376	1.116	48.130	0.745	0.867	0.001	0.001	-3.310	-0.002	0.319	0.007	0.001
627	11.525	1.240	0.000	0.013	13.389	1.117	48.170	0.745	0.867	0.001	0.001	-3.320	-0.002	0.317	0.007	0.001
628	11.534	1.230	0.000	0.013	13.403	1.119	48.209	0.746	0.866	0.001	0.001	-3.330	-0.002	0.315	0.007	0.001
629	11.543	1.220	0.000	0.013	13.416	1.120	48.249	0.746	0.866	0.001	0.001	-3.340	-0.002	0.313	0.007	0.001
630	11.552	1.210	0.000	0.013	13.429	1.122	48.288	0.747	0.865	0.001	0.001	-3.350	-0.002	0.310	0.008	0.001
631	11.561	1.200	0.000	0.013	13.443	1.123	48.327	0.747	0.865	0.001	0.001	-3.360	-0.002	0.308	0.008	0.001
632	11.570	1.190	0.000	0.013	13.456	1.125	48.367	0.747	0.864	0.001	0.001	-3.370	-0.002	0.306	0.008	0.001
633	11.579	1.180	0.000	0.013	13.470	1.127	48.406	0.748	0.864	0.001	0.001	-3.380	-0.002	0.304	0.008	0.001
634	11.588	1.170	0.000	0.013	13.483	1.128	48.445	0.748	0.863	0.001	0.001	-3.390	-0.002	0.301	0.008	0.001
635	11.597	1.160	0.000	0.013	13.496	1.130	48.485	0.749	0.863	0.001	0.001	-3.400	-0.002	0.299	0.008	0.001
636	11.606	1.150	0.000	0.013	13.510	1.131	48.524	0.749	0.862	0.001	0.001	-3.410	-0.002	0.297	0.008	0.001
637	11.614	1.140	0.000	0.013	13.523	1.133	48.563	0.750	0.862	0.001	0.001	-3.420	-0.002	0.295	0.008	0.001
638	11.623	1.130	0.000	0.013	13.536	1.134	48.602	0.750	0.861	0.001	0.001	-3.430	-0.002	0.292	0.008	0.001
639	11.632	1.120	0.000	0.013	13.550	1.136	48.641	0.751	0.861	0.001	0.001	-3.440	-0.002	0.290	0.008	0.001
640	11.641	1.110	0.000	0.013	13.563	1.137	48.680	0.751	0.860	0.001	0.001	-3.450	-0.002	0.288	0.008	0.001
641	11.650	1.100	0.000	0.013	13.576	1.139	48.720	0.751	0.860	0.001	0.001	-3.460	-0.002	0.285	0.008	0.001
642	11.658	1.090	0.000	0.013	13.590	1.141	48.759	0.752	0.859	0.001	0.001	-3.470	-0.002	0.283	0.008	0.001
643	11.667	1.080	0.000	0.013	13.603	1.142	48.798	0.752	0.859	0.001	0.001	-3.480	-0.002	0.281	0.008	0.001
644	11.676	1.070	0.000	0.013	13.616	1.144	48.837	0.753	0.858	0.001	0.001	-3.490	-0.002	0.279	0.008	0.001
645	11.685	1.060	0.000	0.013	13.629	1.145	48.876	0.753	0.858	0.001	0.001	-3.500	-0.002	0.276	0.008	0.001
646	11.693	1.050	0.000	0.013	13.643	1.147	48.915	0.754	0.857	0.001	0.001	-3.510	-0.002	0.274	0.008	0.001
647	11.702	1.040	0.000	0.013	13.656	1.148	48.954	0.754	0.857	0.001	0.001	-3.520	-0.002	0.272	0.008	0.001
648	11.711	1.030	0.000	0.013	13.669	1.150	48.993	0.755	0.856	0.001	0.001	-3.530	-0.002	0.269	0.008	0.001
649	11.720	1.020	0.000	0.013	13.682	1.152	49.032	0.755	0.856	0.001	0.001	-3.540	-0.002	0.267	0.008	0.001
650	11.728	1.010	0.000	0.013	13.696	1.153	49.071	0.756	0.855	0.001	0.001	-3.550	-0.002	0.264	0.008	0.001
651	11.737	1.000	0.000	0.013	13.709	1.155	49.109	0.756	0.855	0.001</						

659	11.806	0.920	0.000	0.013	13.814	1.168	49.420	0.759	0.651	0.001	0.001	-3.840	-0.002	0.243	0.009	0.001
660	11.814	0.910	0.000	0.013	13.828	1.169	49.458	0.760	0.650	0.001	0.001	-3.850	-0.002	0.241	0.009	0.001
661	11.823	0.900	0.000	0.013	13.841	1.171	49.497	0.760	0.649	0.001	0.001	-3.860	-0.002	0.238	0.009	0.001
662	11.832	0.890	0.000	0.013	13.854	1.172	49.536	0.761	0.649	0.001	0.001	-3.870	-0.002	0.236	0.009	0.001
663	11.840	0.880	0.000	0.013	13.867	1.174	49.574	0.761	0.648	0.001	0.001	-3.880	-0.002	0.233	0.009	0.001
664	11.849	0.870	0.000	0.013	13.880	1.176	49.613	0.762	0.648	0.001	0.001	-3.890	-0.002	0.231	0.009	0.000
665	11.857	0.860	0.000	0.013	13.893	1.177	49.651	0.762	0.647	0.001	0.001	-3.700	-0.002	0.229	0.009	0.000
666	11.866	0.850	0.000	0.013	13.906	1.179	49.690	0.763	0.647	0.001	0.001	-3.710	-0.002	0.226	0.009	0.000
667	11.874	0.840	0.000	0.013	13.920	1.180	49.728	0.763	0.646	0.001	0.001	-3.720	-0.002	0.224	0.009	0.000
668	11.883	0.830	0.000	0.013	13.933	1.182	49.767	0.763	0.646	0.001	0.001	-3.730	-0.002	0.221	0.009	0.000
669	11.891	0.820	0.000	0.013	13.946	1.184	49.805	0.764	0.645	0.001	0.001	-3.740	-0.002	0.219	0.009	0.000
670	11.899	0.810	0.000	0.013	13.959	1.185	49.844	0.764	0.645	0.001	0.001	-3.750	-0.002	0.216	0.009	0.000
671	11.908	0.800	0.000	0.013	13.972	1.187	49.882	0.765	0.644	0.001	0.001	-3.760	-0.002	0.214	0.009	0.000
672	11.916	0.790	0.000	0.013	13.985	1.188	49.921	0.765	0.644	0.001	0.001	-3.770	-0.002	0.211	0.009	0.000
673	11.925	0.780	0.000	0.013	13.998	1.190	49.959	0.766	0.643	0.001	0.001	-3.780	-0.002	0.209	0.009	0.000
674	11.933	0.770	0.000	0.013	14.011	1.192	49.997	0.766	0.643	0.001	0.000	-3.790	-0.002	0.207	0.009	0.000
675	11.942	0.760	0.000	0.013	14.024	1.193	50.036	0.766	0.642	0.001	0.000	-3.800	-0.002	0.204	0.009	0.000
676	11.950	0.750	0.000	0.013	14.037	1.195	50.074	0.767	0.642	0.001	0.000	-3.810	-0.002	0.202	0.009	0.000
677	11.958	0.740	0.000	0.013	14.050	1.197	50.112	0.767	0.641	0.001	0.000	-3.820	-0.002	0.199	0.010	0.000
678	11.967	0.730	0.000	0.013	14.063	1.198	50.151	0.768	0.641	0.001	0.000	-3.830	-0.002	0.197	0.010	0.000
679	11.975	0.720	0.000	0.013	14.076	1.200	50.189	0.768	0.640	0.001	0.000	-3.840	-0.002	0.194	0.010	0.000
680	11.983	0.710	0.000	0.013	14.089	1.201	50.227	0.769	0.640	0.001	0.000	-3.850	-0.003	0.192	0.010	0.000
681	11.992	0.700	0.000	0.013	14.102	1.203	50.265	0.769	0.639	0.001	0.000	-3.860	-0.003	0.189	0.010	0.000
682	12.000	0.690	0.000	0.013	14.115	1.205	50.304	0.769	0.639	0.001	0.000	-3.870	-0.003	0.187	0.010	0.000
683	12.008	0.680	0.000	0.013	14.128	1.206	50.342	0.770	0.638	0.001	0.000	-3.880	-0.003	0.184	0.010	0.000
684	12.017	0.670	0.000	0.013	14.141	1.208	50.380	0.770	0.638	0.001	0.000	-3.890	-0.003	0.182	0.010	0.000
685	12.025	0.660	0.000	0.013	14.154	1.210	50.418	0.771	0.637	0.001	0.000	-3.900	-0.003	0.179	0.010	0.000
686	12.033	0.650	0.000	0.013	14.167	1.211	50.456	0.771	0.637	0.001	0.000	-3.910	-0.003	0.176	0.010	0.000
687	12.041	0.640	0.000	0.013	14.180	1.213	50.494	0.772	0.636	0.001	0.000	-3.920	-0.003	0.174	0.010	0.000
688	12.050	0.630	0.000	0.013	14.193	1.214	50.532	0.772	0.636	0.001	0.000	-3.930	-0.003	0.171	0.010	0.000
689	12.058	0.620	0.000	0.013	14.206	1.216	50.570	0.772	0.635	0.001	0.000	-3.940	-0.003	0.169	0.010	0.000
690	12.066	0.610	0.000	0.013	14.219	1.218	50.608	0.773	0.635	0.001	0.000	-3.950	-0.003	0.166	0.010	0.000
691	12.074	0.600	0.000	0.013	14.232	1.219	50.646	0.773	0.634	0.001	0.000	-3.960	-0.003	0.164	0.010	0.000
692	12.082	0.590	0.000	0.013	14.245	1.221	50.684	0.774	0.634	0.001	0.000	-3.970	-0.003	0.161	0.010	0.000
693	12.091	0.580	0.000	0.013	14.258	1.223	50.722	0.774	0.633	0.001	0.000	-3.980	-0.003	0.159	0.010	0.000
694	12.099	0.570	0.000	0.013	14.271	1.224	50.760	0.775	0.633	0.001	0.000	-3.990	-0.003	0.156	0.010	0.000
695	12.107	0.560	0.000	0.013	14.284	1.226	50.798	0.775	0.632	0.001	0.000	-4.000	-0.003	0.153	0.010	0.000
696	12.115	0.550	0.000	0.013	14.296	1.228	50.836	0.775	0.632	0.001	0.000	-4.010	-0.003	0.151	0.010	0.000
697	12.123	0.540	0.000	0.013	14.309	1.229	50.874	0.776	0.631	0.001	0.000	-4.020	-0.003	0.148	0.010	0.000
698	12.131	0.530	0.000	0.013	14.322	1.231	50.912	0.776	0.631	0.001	0.000	-4.030	-0.003	0.146	0.010	0.000
699	12.140	0.520	0.000	0.013	14.335	1.233	50.950	0.777	0.630	0.001	0.000	-4.040	-0.003	0.143	0.011	0.000
700	12.148	0.510	0.000	0.013	14.348	1.234	50.988	0.777	0.629	0.001	0.000	-4.050	-0.003	0.140	0.011	0.000
701	12.156	0.500	0.000	0.013	14.361	1.236	51.025	0.777	0.629	0.001	0.000	-4.060	-0.003	0.138	0.011	0.000
702	12.164	0.490	0.000	0.013	14.374	1.238	51.063	0.778	0.628	0.001	0.000	-4.070	-0.003	0.135	0.011	0.000
703	12.172	0.480	0.000	0.013	14.387	1.239	51.101	0.778	0.628	0.001	0.000	-4.080	-0.003	0.133	0.011	0.000
704	12.180	0.470	0.000	0.013	14.399	1.241	51.139	0.779	0.627	0.001	0.000	-4.090	-0.003	0.130	0.011	0.000
705	12.188	0.460	0.000	0.013	14.412	1.243	51.176	0.779	0.627	0.001	0.000	-4.100	-0.003	0.127	0.011	0.000
706	12.196	0.450	0.000	0.013	14.425	1.244	51.214	0.779	0.626	0.001	0.000	-4.110	-0.003	0.125	0.011	0.000
707	12.204	0.440	0.000	0.013	14.438	1.246	51.252	0.780	0.626	0.001	0.000	-4.120	-0.003	0.122	0.011	0.000
708	12.212	0.430	0.000	0.013	14.451	1.248	51.289	0.780	0.625	0.001	0.000	-4.130	-0.003	0.119	0.011	0.000
709	12.220	0.420	0.000	0.013	14.463	1.249	51.327	0.781	0.625	0.001	0.000	-4.140	-0.003	0.117	0.011	0.000
710	12.228	0.410	0.000	0.013	14.476	1.251	51.365	0.781	0.624	0.001	0.000	-4.150	-0.003	0.114	0.011	0.000
711	12.236	0.400	0.000	0.013	14.489	1.253	51.402	0.782	0.624	0.001	0.000	-4.160	-0.003	0.111	0.011	0.000
712	12.244	0.390	0.000	0.013	14.502	1.254	51.440	0.782	0.623	0.001	0.000	-4.170	-0.003	0.109	0.011	0.000
713	12.252	0.380	0.000	0.013	14.515	1.256	51.477	0.782	0.623	0.001	0.000	-4.180	-0.003	0.106	0.011	0.000
714	12.260	0.370	0.000	0.013	14.527	1.258	51.515	0.783	0.622	0.001	0.000	-4.190	-0.003	0.103	0.011	0.000
715	12.268	0.360	0.000	0.013	14.540	1.260	51.553	0.783	0.622	0.001	0.000	-4.200	-0.003	0.101	0.011	0.000
716	12.276	0.350	0.000	0.013	14.553	1.261	51.590	0.784	0.621	0.001	0.000	-4.210	-0.003	0.098	0.011	0.000
717	12.284	0.340	0.000	0.013	14.566	1.263	51.628	0.784	0.621	0.001	0.000	-4.220	-0.003	0.095	0.011	0.000
718	12.292	0.330	0.000	0.013	14.578	1.265	51.665	0.784	0.620	0.001	0.000	-4.230	-0.003	0.093	0.011	0.000
719	12.300	0.320	0.000	0.013	14.591	1.266	51.702	0.785	0.620	0.001	0.000	-4.240	-0.003	0.090	0.011	0.000
720	12.308	0.310	0.000	0.013	14.604	1.268	51.740	0.785	0.619	0.001	0.000	-4.250	-0.003	0.087	0.012	0.000
721	12.316	0.300	0.000	0.013	14.617	1.270	51.777	0.786	0.619	0.001	0.000	-4.260	-0.003	0.085	0.012	0.000
722	12.323	0.290	0.000	0.013	14.629	1.271	51.815	0.786	0.618	0.001	0.000	-4.270	-0.003	0.082	0.012	0.000
723	12.331	0.280	0.000	0.013	14.642	1.273	51.852	0.786	0.618	0.001	0.000	-4.280	-0.003	0.079	0.012	0.000
724	12.339	0.270	0.000	0.013	14.655	1.275	51.889	0.787	0.617	0.001	0.000	-4.290	-0.003	0.076	0.012	0.000
725	12.347	0.260	0.000	0.013	14.668	1.277	51.927	0.787	0.617	0.001	0.000	-4.300	-0.003	0.074	0.012	0.000
726	12.355	0.250	0.000	0.013	14.680	1.278	51.964	0.788	0.616	0.001	0.000	-4.310	-0.003	0.071	0.012	0.000
727	12.363	0.240	0.000	0.013	14.693	1.280	52.001	0.788	0.616	0.001	0.000	-4.320	-0.003	0.068	0.012	0.000
728	12.370	0.230	0.000	0.013	14.706	1.282	52.039	0.788	0.615	0.001	0.000	-4.330	-0.003	0.065	0	

736	12.433	0.150	0.000	0.013	14.807	1.296	52.336	0.792	0.811	0.001	0.000	-4.410	-0.003	0.043	0.012	0.000
737	12.440	0.140	0.000	0.013	14.819	1.297	52.373	0.792	0.811	0.001	0.000	-4.420	-0.003	0.040	0.012	0.000
738	12.448	0.130	0.000	0.013	14.832	1.299	52.410	0.792	0.810	0.001	0.000	-4.430	-0.003	0.038	0.012	0.000
739	12.456	0.120	0.000	0.013	14.845	1.301	52.447	0.793	0.809	0.001	0.000	-4.440	-0.003	0.035	0.012	0.000
740	12.463	0.110	0.000	0.013	14.857	1.303	52.484	0.793	0.809	0.001	0.000	-4.450	-0.003	0.032	0.012	0.000
741	12.471	0.100	0.000	0.013	14.870	1.304	52.522	0.794	0.808	0.001	0.000	-4.460	-0.003	0.029	0.013	0.000
742	12.479	0.090	0.000	0.013	14.882	1.306	52.559	0.794	0.808	0.001	0.000	-4.470	-0.003	0.026	0.013	0.000
743	12.486	0.080	0.000	0.013	14.895	1.308	52.596	0.794	0.807	0.001	0.000	-4.480	-0.003	0.024	0.013	0.000
744	12.494	0.070	0.000	0.013	14.908	1.309	52.633	0.795	0.807	0.001	0.000	-4.490	-0.003	0.021	0.013	0.000
745	12.502	0.060	0.000	0.013	14.920	1.311	52.669	0.795	0.806	0.001	0.000	-4.500	-0.003	0.018	0.013	0.000
746	12.509	0.050	0.000	0.013	14.933	1.313	52.706	0.796	0.806	0.001	0.000	-4.510	-0.003	0.015	0.013	0.000
747	12.517	0.040	0.000	0.013	14.945	1.315	52.743	0.796	0.805	0.001	0.000	-4.520	-0.003	0.012	0.013	0.000
748	12.524	0.030	0.000	0.013	14.958	1.317	52.780	0.796	0.805	0.001	0.000	-4.530	-0.003	0.009	0.013	0.000
749	12.532	0.020	0.000	0.013	14.970	1.318	52.817	0.797	0.804	0.001	0.000	-4.540	-0.003	0.007	0.013	0.000
750	12.540	0.010	0.000	0.013	14.983	1.320	52.854	0.797	0.804	0.001	0.000	-4.550	-0.003	0.004	0.013	0.000
751	12.547	0.000	0.000	0.013	14.996					0.001	0.000	-4.560	-0.003	0.001	0.013	0.000

LONGITUD
CUBIERTA
29.968

AREA UNA RAMA	MOMENTO ESTATICO	MOMENTO ESTATICO	MOMENTO INERCIA	MOMENTO INERCIA
A/2	So/2	S	I x-x	I y-y
0.749	3.416	0.000	7.386	38.520
AREA TOTAL DE CUBIERTA TOTAL	ORDENADA CENTROIDAL	CON RESPECTO AL EJE NEUTRO	RADIO GIRO YY	RADIO GIRO YY
A	Yen		2.220	5.070
1.498	4.560	MODULO SECCION SUPERIOR		
	ORDENADA NUCLEO SUPERIOR	2.520		
	1.677	MODULO SECCION INFERIOR		
	ORDENADA NUCLEO INFERIOR	-1.621		
	-1.081			
	EFICIENCIA			
	0.368			

PROPIEDADES GEOMETRICAS

AREA DE UNA RAMA	0.749 M2
AREA DE DOS RAMAS	1.498 M2
ORDENADA DE EJE NEUTRO	4.560 M
MAXIMA ORDENADA SUPERIOR (DESDE EJE NEUTRO)	1.677 M
MAXIMA ORDENADA INFERIOR (DESDE EJE NEUTRO)	-1.081 M
MOMENTO ESTATICO CON RESPECTO A PISO	6.833 M3
MOMENTO ESTATICO CON RESPECTO A EJE NEUTRO	0.000 M3
MODULO DE SECCION SUPERIOR	2.513 M3
MODULO DE SECCION INFERIOR	-1.620 M3
MOMENTO DE INERCIA XX	7.386 M4
MOMENTO DE INERCIA YY	38.520 M4
RADIO DE GIRO XX	2.220 M
RADIO DE GIRO YY	5.070 M

Paso 2 :

Análisis estructural :

Análisis de un cascaron largo de sección circular apuntado, por el método de la viga:

El método de la viga para analizar cubiertas cilíndricas largas, consiste en considerar al cascaron como viga hipotética.

- 1.- Con la misma longitud que el cascarón (20 m para este caso.
- 2.- Con el mismo sistema de apoyos (ahora simplemente apoyado)
- 3.- Con la misma continuidad (discontinuo para este ejemplo)
- 4.- La sección transversal de la viga es la misma del cilindro; circular apuntado.
- 5.- Las cargas que se aplican en el análisis, son las que afectaran realmente a la cubierta, como viento, peso propio y carga viva.
- 6.- El análisis consiste en determinar los diagramas de fuerzas cortantes y de momentos flexionantes.

Los valores de los diagramas de fuerzas cortantes y de momentos flexionantes, junto con las propiedades geométricas obtenidas en el paso 1, se aplican a las fórmulas de la teoría de la flexión y del cortante, para determinar la magnitud y posición de los esfuerzos normales y cortantes de las secciones, a lo largo de la cubierta.

Geometría de la viga:

Sección transversal:	circular apuntada
Largo del cilindro:	20.000 m
Claro de la sección (base)	25.095 m
Altura de la sección (peralte)	7.500 m

Cargas que se aplican:

Peso propio:	138.139 kg/m ²
Carga viva:	65.000 kg/m ² reglamento
Carga unitaria por gravedad:	g= 203.139 kg/m ² (suma anteriores)

Coefficiente seguridad C_s =	1.300
Cargas de viento:	Del reglamento de construcción del D.F.
Presión básica:	35.000 kg/m ²
K=	1.600 kg/m ²
C_z = (altura menos a 10 m)	1.000 kg/m ²
A=	7.500 m
B=	25.090 m
R= A/B =	0.299
$C_p = 1.4 * R$	0.418 para zona a -0.999 para zona b

La formula que recomienda el reglamento de construcción del Distrito Federal, para determinar la magnitud del viento es:

$$P = P_o * C_z * C_p * K$$

Aplicando los valores de arriba, obtenemos;

Carga por viento en la zona A; $P = 23.431 \text{ kg/m}^2$ (desfavorable)
 Carga por viento en la zona B; $P = -55.937 \text{ kg/m}^2$

Calculo de la viga simplemente apoyada, sujeta al efecto de la gravedad .

Largo de la viga	L =	20.000 m
Ancho de la sección:	B =	25.095 m
Carga unitaria	$w = C_s * (g + p)$	294.541 kg/m ²
Carga lineal (uniformemente repartida)	$W = w * B$	7391.356 kg/m
Momento flexionante (máximo)	$M = W * (L^2) / 8$	369567.805 kg-m
Reacción : (en apoyo)	$R = W * L / 2$	73913.561 kg
Modulación de secciones transversales (para análisis)		1.000 m

Con lo anterior estamos en condiciones de determinar los diagramas de fuerzas cortantes y momentos flexionantes de nuestra viga hipotética.

Se propone la modulación de secciones transversales a cada metro, porque la carga lineal está dada en kg/m, entonces el análisis también se puede hacer con cargas puntuales de la misma magnitud que la carga lineal (7391.356 kg), aplicadas a cada 1 m, a partir del apoyo (sección transversal 0), hasta el centro del claro (sección transversal 10), y por el efecto de simetría, trabajando con la mitad conoceremos el resto.

La Tabla 2; es una hoja de calculo “Excel” en la que se determinaron los diagramas de fuerzas cortante y momento flexionantes, utilizando el método de “Newmark”.

En donde, la sección transversal N es el corte transversal de la viga en la posición N.

La absisa de la sección transversal, es la distancia desde el corte deseado (N) hasta el apoyo izquierdo.

La fuerza cortante en la sección: es la fuerza de corte que produce el sistema de cargas, sobre la sección.

Diferencial de momento flexionante o área de cortante: Es el incremento que en ese espacio sufre el momento flexionante, en el método empleado para el análisis; es el producto del promedio de ordenadas de las fuerzas cortantes que actúan en dos secciones contiguas, por la distancia entre las dos secciones, en otras palabras gráficamente se trata del área del diagrama de fuerzas cortante entre las dos secciones.

Momento flexionante en la sección: se trata del valor de las ordenadas del diagrama de momentos flexionantes que actúan en la viga hipotética, en el método empleado para el análisis, se determina acumulando el incremento o diferencial de momentos o área de cortantes a partir del apoyo en donde el momento flexionante es cero por ser apoyo discontinuo.

Conocidas las ordenadas de los diagramas de fuerzas cortante y de momentos flexionantes, se aplican junto con algunas de las propiedades geométricas, en las formulas de la teoría de la flexión y del cortante en cada sección, para obtener la distribución de esfuerzos a los que esta sometida esa sección.

TABLA 2

ANÁLISIS POR EL METODO DE LA VIGA

DIAGRAMAS DE FUERZAS CORTANTES Y MOMENTOS FLEXIONANTES

VIGA HIPOTETICA

POR SER SIMETRICA SE TRABAJA CON LA MITAD DE LA VIGA

SECCION TRANSVERSAL N ABSISA DE LA SECCION : Z	0	1	2	3	4	5	6	7	8	9	10	CMS.
CARGA UNIFORMEMENTE REPARTIDA		7391.356	7391.356	7391.356	7391.356	7391.356	7391.356	7391.356	7391.356	7391.356	7391.356	KG/M
FUERZA CORTANTE DE LA SECCIÓN DIFERENCIAL DE MOMENTO FLEXIONANTE O AREA CORTANTE	73913.560	66522.204	59130.848	51739.492	44348.136	36956.780	29565.424	22174.068	14782.712	7391.356	0.000	KG
MOMENTO FLEXIONANTE DE LA SECCIÓN	0.000	70217.882	133044.408	188479.578	236523.392	277175.850	310436.952	336306.698	354785.088	365872.122	369567.800	KG*MT

Diagrama de Fuerza Cortante



Diagrama de Momentos Flexionantes



Paso 3:

A.- Determinación de los esfuerzos normales, producidos por la flexión :

En el paso 1, conocimos las siguientes propiedades geométricas de la estructura:

- Coordenadas del lugar geométrico
- Area transversal
- Posición del eje neutro
- Momento estático
- Momento de inercia

En el paso 2, se determinaron por el método de la viga:
El diagrama de fuerzas cortantes
El diagrama de momentos flexionantes

El paso 3; A.- nos servirá para conocer la magnitud y posición de los esfuerzos normales que produce la flexión en cualquier sección transversal.

En la tabla 3, se calcularon los esfuerzos de tracción y compresión que produce la flexión, cuyo valor dependerá directamente de:

- a.- La posición con respecto a la sección, ya que las fibras más cercanas al eje neutro, serán menos esforzadas.
- b.- Y de su posición a lo largo de la estructura, debido a que la magnitud de los momentos flexionantes aumenta mientras más se alejen de los apoyos.

El procedimiento para determinar la magnitud y posición de los esfuerzos normales, consiste en aplicar en la fórmula de la flexión; los valores del momento flexionante (M_i) y del momento de inercia (I_{yy}) de la sección, con el valor de la ordenada con respecto al eje neutro (Y_{ni}) de la fibra en donde se quiera determinar el esfuerzo.

$$\sigma = M_i * Y_{ni} / I_{XX} \quad \text{fórmula 1}$$

M_i : es valor de la ordenada del diagrama de momentos flexionantes en la sección deseada, su unidad será $\text{kg}\cdot\text{cm}$.

Y_{ni} : corresponde a la ordenada con respecto al eje neutro, de la fibra en donde se calcula el esfuerzo, su magnitud puede ser positiva o negativa, lo que nos dará esfuerzos de tracción y de compresión, y su unidad será cm .

I_{xx} : es el momento de inercia con respecto al eje neutro, en el mismo sentido del sistema de cargas, su valor es constante en cilindros y superficies prismáticas y su unidad debe ser cm^4

La magnitud de los esfuerzos calculados puede ser positiva (compresión), negativa (tracción) y cero cuando se trata de las fibras del eje neutro ($Y = 4.563$).

En las columnas de la 28 a la 38 de la tabla 3, se calcularon los esfuerzos de once secciones transversales, separadas a cada metro, desde la sección $Z=0.00$ que corresponde al apoyo hasta la sección $Z=10.00$ que corresponde al centro del claro (por simetría conoceremos la otra parte media del cilindro).

La ordenada Y_{ni} , se varió verticalmente a cada centímetro y solo en una rama de la sección, ya que por simetría conoceremos los esfuerzos de la otra rama.

Con la determinación de los esfuerzos normales que produce la flexión, estamos en condiciones de diseñar el espesor de la cascara, que al principio propusimos como primer tanteo de 5 cms, y la dosificación y posición del acero de refuerzo longitudinal. Pero no lo haré porque el propósito es solo determinar la magnitud y posición de los esfuerzos.

TABLA 3

ESFUERZOS NORMALES DEBIDOS A LA FLEXION :

		COLUMNA 28	COLUMNA 29	COLUMNA 30	COLUMNA 31	COLUMNA 32	COLUMNA 33	COLUMNA 34	COLUMNA 35	COLUMNA 36	COLUMNA 37	COLUMNA 38
SECCION TRANSVERSAL		Z=0.00	Z=1.00	Z=2.00	Z=3.00	Z=4.00	Z=5.00	Z=6.00	Z=7.00	Z=8.00	Z=9.00	Z=10.00
MOMENTO FLEXIONANTE UNIDAD		0.000	70217.883	133044.410	188479.581	236523.395	277175.854	310436.956	336306.703	354785.093	365872.127	369567.805
		kg*m	kg*m	kg*m	kg*m	kg*m	kg*m	kg*m	kg*m	kg*m	kg*m	kg*m
FORMULA		M*Y/I	M*Y/I	M*Y/I	M*Y/I	M*Y/I	M*Y/I	M*Y/I	M*Y/I	M*Y/I	M*Y/I	M*Y/I
COORDENADAS		ESFUERZO LONGITUDINAL	ESFUERZO LONGITUDINAL	ESFUERZO LONGITUDINAL	ESFUERZO LONGITUDINAL	ESFUERZO LONGITUDINAL	ESFUERZO LONGITUDINAL	ESFUERZO LONGITUDINAL	ESFUERZO LONGITUDINAL	ESFUERZO LONGITUDINAL	ESFUERZO LONGITUDINAL	ESFUERZO LONGITUDINAL
X	Y	kg/m ²	kg/m ²	kg/m ²	kg/m ²	kg/m ²	kg/m ²	kg/m ²	kg/m ²	kg/m ²	kg/m ²	kg/m ²
0.00	7.50	0.000	2.787	5.280	7.480	9.387	11.000	12.320	13.347	14.080	14.520	14.667
0.05	7.49	0.000	2.777	5.262	7.455	9.355	10.963	12.278	13.301	14.034	14.471	14.617
0.11	7.48	0.000	2.768	5.244	7.429	9.323	10.925	12.236	13.256	13.984	14.421	14.567
0.17	7.47	0.000	2.758	5.226	7.404	9.291	10.888	12.194	13.210	13.936	14.372	14.517
0.23	7.46	0.000	2.749	5.208	7.378	9.259	10.850	12.152	13.165	13.888	14.322	14.467
0.29	7.45	0.000	2.739	5.190	7.353	9.227	10.813	12.110	13.120	13.840	14.273	14.417
0.35	7.44	0.000	2.730	5.172	7.327	9.195	10.775	12.068	13.074	13.792	14.223	14.367
0.41	7.43	0.000	2.720	5.154	7.302	9.163	10.738	12.026	13.029	13.744	14.174	14.317
0.46	7.42	0.000	2.711	5.136	7.276	9.131	10.700	11.984	12.983	13.696	14.125	14.267
0.52	7.41	0.000	2.701	5.118	7.251	9.099	10.663	11.942	12.938	13.649	14.075	14.217
0.57	7.40	0.000	2.692	5.100	7.225	9.067	10.625	11.901	12.892	13.601	14.026	14.167
0.63	7.39	0.000	2.682	5.082	7.200	9.035	10.588	11.859	12.847	13.553	13.976	14.117
0.68	7.38	0.000	2.673	5.064	7.174	9.003	10.551	11.817	12.801	13.505	13.927	14.067
0.73	7.37	0.000	2.663	5.046	7.149	8.971	10.513	11.775	12.756	13.457	13.877	14.017
0.78	7.36	0.000	2.654	5.028	7.123	8.939	10.476	11.733	12.710	13.409	13.828	13.967
0.83	7.35	0.000	2.644	5.010	7.098	8.907	10.438	11.691	12.665	13.361	13.778	13.917
0.88	7.34	0.000	2.635	4.992	7.072	8.875	10.401	11.649	12.619	13.313	13.729	13.868
0.93	7.33	0.000	2.625	4.974	7.047	8.843	10.363	11.607	12.574	13.265	13.679	13.818
0.98	7.32	0.000	2.616	4.956	7.021	8.811	10.326	11.565	12.529	13.217	13.630	13.768
1.03	7.31	0.000	2.606	4.938	6.996	8.779	10.288	11.523	12.483	13.169	13.580	13.718
1.07	7.30	0.000	2.597	4.920	6.971	8.747	10.251	11.481	12.438	13.121	13.531	13.668
1.12	7.29	0.000	2.587	4.902	6.945	8.715	10.213	11.439	12.392	13.073	13.482	13.618
1.17	7.28	0.000	2.578	4.884	6.920	8.683	10.176	11.397	12.347	13.025	13.432	13.568
1.21	7.27	0.000	2.568	4.866	6.894	8.651	10.138	11.355	12.301	12.977	13.383	13.518
1.26	7.26	0.000	2.559	4.848	6.869	8.619	10.101	11.313	12.256	12.929	13.333	13.468
1.30	7.25	0.000	2.549	4.830	6.843	8.587	10.063	11.271	12.210	12.881	13.284	13.418
1.34	7.24	0.000	2.540	4.812	6.818	8.555	10.026	11.229	12.165	12.833	13.234	13.368
1.39	7.23	0.000	2.530	4.794	6.792	8.523	9.988	11.187	12.119	12.785	13.185	13.318
1.43	7.22	0.000	2.521	4.776	6.767	8.492	9.951	11.145	12.074	12.737	13.135	13.268
1.47	7.21	0.000	2.511	4.758	6.741	8.460	9.914	11.103	12.028	12.689	13.086	13.218
1.52	7.20	0.000	2.502	4.741	6.716	8.428	9.876	11.061	11.983	12.641	13.036	13.168
1.56	7.19	0.000	2.492	4.723	6.690	8.396	9.839	11.019	11.937	12.593	12.987	13.118
1.60	7.18	0.000	2.483	4.705	6.665	8.364	9.801	10.977	11.892	12.545	12.937	13.068
1.64	7.17	0.000	2.473	4.687	6.639	8.332	9.764	10.935	11.847	12.497	12.888	13.018
1.68	7.16	0.000	2.464	4.669	6.614	8.300	9.726	10.893	11.801	12.450	12.839	12.968
1.72	7.15	0.000	2.454	4.651	6.588	8.268	9.689	10.851	11.756	12.402	12.789	12.918
1.76	7.14	0.000	2.445	4.633	6.563	8.236	9.651	10.809	11.710	12.354	12.740	12.868
1.80	7.13	0.000	2.435	4.615	6.537	8.204	9.614	10.767	11.665	12.306	12.690	12.818
1.84	7.12	0.000	2.426	4.597	6.512	8.172	9.576	10.725	11.619	12.258	12.641	12.768
1.88	7.11	0.000	2.417	4.579	6.486	8.140	9.539	10.683	11.574	12.210	12.591	12.718
1.92	7.10	0.000	2.407	4.561	6.461	8.108	9.501	10.642	11.528	12.162	12.542	12.668
1.95	7.09	0.000	2.398	4.543	6.435	8.076	9.464	10.600	11.483	12.114	12.492	12.619
1.99	7.08	0.000	2.388	4.525	6.410	8.044	9.426	10.558	11.437	12.066	12.443	12.569
2.03	7.07	0.000	2.379	4.507	6.384	8.012	9.389	10.516	11.392	12.018	12.393	12.519
2.07	7.06	0.000	2.369	4.489	6.359	7.980	9.351	10.474	11.346	11.970	12.344	12.469
2.10	7.05	0.000	2.360	4.471	6.334	7.948	9.314	10.432	11.301	11.922	12.294	12.419
2.14	7.04	0.000	2.350	4.453	6.308	7.916	9.277	10.390	11.256	11.874	12.245	12.369
2.18	7.03	0.000	2.341	4.435	6.283	7.884	9.239	10.348	11.210	11.826	12.196	12.319
2.21	7.02	0.000	2.331	4.417	6.257	7.852	9.202	10.306	11.165	11.778	12.146	12.269
2.25	7.01	0.000	2.322	4.399	6.232	7.820	9.164	10.264	11.119	11.730	12.097	12.219
2.29	7.00	0.000	2.312	4.381	6.206	7.788	9.127	10.222	11.074	11.682	12.047	12.169
2.32	6.99	0.000	2.303	4.363	6.181	7.756	9.089	10.180	11.026	11.634	11.998	12.119
2.36	6.98	0.000	2.293	4.345	6.155	7.724	9.052	10.138	10.983	11.586	11.948	12.069
2.39	6.97	0.000	2.284	4.327	6.130	7.692	9.014	10.096	10.937	11.538	11.899	12.019
2.43	6.96	0.000	2.274	4.309	6.104	7.660	8.977	10.054	10.892	11.490	11.849	11.969
2.46	6.95	0.000	2.265	4.291	6.079	7.628	8.939	10.012	10.846	11.442	11.800	11.919
2.49	6.94	0.000	2.255	4.273	6.053	7.596	8.902	9.970	10.801	11.394	11.750	11.869
2.53	6.93	0.000	2.246	4.255	6.028	7.564	8.864	9.928	10.755	11.346	11.701	11.819
2.56	6.92	0.000	2.236	4.237	6.002	7.532	8.827	9.886	10.710	11.298	11.652	11.769
2.60	6.91	0.000	2.227	4.219	5.977	7.500	8.789	9.844	10.665	11.250	11.602	11.719
2.63	6.90	0.000	2.217	4.201	5.951	7.468	8.752	9.802	10.619	11.203	11.553	11.669
2.66	6.89	0.000	2.208	4.183	5.926	7.436	8.715	9.760	10.574	11.155	11.503	11.619
2.69	6.88	0.000	2.198	4.165	5.900	7.404	8.677	9.718	10.528	11.107	11.454	11.569
2.73	6.87	0.000	2.189	4.147	5.875	7.372	8.640	9.676	10.483	11.059	11.404	11.519
2.76	6.86	0.000	2.179	4.129	5.849	7.340	8.602	9.634	10.437	11.011	11.355	11.469
2.79	6.85	0.000	2.170	4.111	5.824	7.308	8.565	9.592	10.392	10.963	11.305	11.419
2.82	6.84	0.000	2.160	4.093	5.798	7.277	8.527	9.550	10.346	10.915	11.256	11.370
2.86	6.83	0.000	2.151	4.075	5.773	7.245	8.490	9.508	10.301	10.867	11.206	11.320
2.89	6.82	0.000	2.141	4.057	5.748	7.213	8.452	9.466	10.255	10.819	11.157	11.270
2.92	6.81	0.000	2.132	4.039	5.722	7.181	8.415	9.425	10.210	10.771	11.107	11.220
2.95	6.80	0.000	2.122	4.021	5.697	7.149	8.377	9.383	10.164	10.723	11.058	11.170
2.98	6.79	0.000	2.113	4.003	5.671	7.117	8.340	9.341	10.119	10.675	11.009	11.120
3.01	6.78	0.000	2.103	3.985	5.646	7.085	8.302	9.299	10.073	10.627	10.959	11.070
3.04	6.77	0.000	2.094	3.967	5.620	7.053	8.265	9.257	10.028	10.579	10.910	11.020
3.07	6.76	0.000	2.084	3.949	5.595	7.021	8.227	9.215	9.983	10.531	10.860	10.970
3.10	6.75	0.000	2.075	3.931	5.569	6.989	8.190	9.173	9.937	10.483	10.811	10.920

3.13	6.74	0.000	2.065	3.913	5.544	6.957	8.152	9.131	9.892	10.435	10.761	10.870
3.16	6.73	0.000	2.056	3.895	5.518	6.925	8.115	9.089	9.846	10.387	10.712	10.820
3.19	6.72	0.000	2.046	3.877	5.493	6.893	8.078	9.047	9.801	10.339	10.662	10.770
3.22	6.71	0.000	2.037	3.859	5.467	6.861	8.040	9.005	9.755	10.291	10.613	10.720
3.25	6.70	0.000	2.027	3.841	5.442	6.829	8.003	8.963	9.710	10.243	10.563	10.670
3.28	6.69	0.000	2.018	3.823	5.416	6.797	7.965	8.921	9.664	10.195	10.514	10.620
3.31	6.68	0.000	2.008	3.805	5.391	6.765	7.928	8.879	9.619	10.147	10.464	10.570
3.34	6.67	0.000	1.999	3.787	5.365	6.733	7.890	8.837	9.573	10.099	10.415	10.520
3.37	6.66	0.000	1.989	3.769	5.340	6.701	7.853	8.795	9.528	10.051	10.366	10.470
3.40	6.65	0.000	1.980	3.751	5.314	6.669	7.815	8.753	9.482	10.003	10.316	10.420
3.43	6.64	0.000	1.970	3.733	5.289	6.637	7.778	8.711	9.437	9.956	10.267	10.370
3.46	6.63	0.000	1.961	3.715	5.263	6.605	7.740	8.669	9.392	9.908	10.217	10.320
3.49	6.62	0.000	1.951	3.697	5.238	6.573	7.703	8.627	9.346	9.860	10.168	10.270
3.51	6.61	0.000	1.942	3.679	5.212	6.541	7.665	8.585	9.301	9.812	10.118	10.220
3.54	6.60	0.000	1.932	3.661	5.187	6.509	7.628	8.543	9.255	9.764	10.069	10.171
3.57	6.59	0.000	1.923	3.643	5.161	6.477	7.590	8.501	9.210	9.716	10.019	10.121
3.60	6.58	0.000	1.913	3.625	5.136	6.445	7.553	8.459	9.164	9.668	9.970	10.071
3.63	6.57	0.000	1.904	3.607	5.111	6.413	7.515	8.417	9.119	9.620	9.920	10.021
3.65	6.56	0.000	1.894	3.589	5.085	6.381	7.478	8.375	9.073	9.572	9.871	9.971
3.68	6.55	0.000	1.885	3.571	5.060	6.349	7.441	8.333	9.028	9.524	9.822	9.921
3.71	6.54	0.000	1.875	3.553	5.034	6.317	7.403	8.291	8.982	9.476	9.772	9.871
3.73	6.53	0.000	1.866	3.535	5.008	6.285	7.366	8.249	8.937	9.428	9.723	9.821
3.76	6.52	0.000	1.856	3.517	4.983	6.253	7.328	8.207	8.891	9.380	9.673	9.771
3.79	6.51	0.000	1.847	3.500	4.958	6.221	7.291	8.166	8.846	9.332	9.624	9.721
3.82	6.50	0.000	1.837	3.482	4.932	6.189	7.253	8.124	8.801	9.284	9.574	9.671
3.84	6.49	0.000	1.828	3.464	4.907	6.157	7.216	8.082	8.755	9.236	9.525	9.621
3.87	6.48	0.000	1.818	3.446	4.881	6.125	7.178	8.040	8.710	9.188	9.475	9.571
3.90	6.47	0.000	1.809	3.428	4.856	6.093	7.141	7.998	8.664	9.140	9.426	9.521
3.92	6.46	0.000	1.800	3.410	4.830	6.061	7.103	7.956	8.619	9.092	9.376	9.471
3.95	6.45	0.000	1.790	3.392	4.805	6.030	7.066	7.914	8.573	9.044	9.327	9.421
3.97	6.44	0.000	1.781	3.374	4.779	6.008	7.028	7.872	8.528	8.996	9.277	9.371
4.00	6.43	0.000	1.771	3.356	4.754	5.966	6.991	7.830	8.482	8.948	9.228	9.321
4.03	6.42	0.000	1.762	3.338	4.728	5.934	6.953	7.788	8.437	8.900	9.179	9.271
4.05	6.41	0.000	1.752	3.320	4.703	5.902	6.916	7.746	8.391	8.852	9.129	9.221
4.08	6.40	0.000	1.743	3.302	4.677	5.870	6.878	7.704	8.346	8.804	9.080	9.171
4.10	6.39	0.000	1.733	3.284	4.652	5.838	6.841	7.662	8.300	8.757	9.030	9.121
4.13	6.38	0.000	1.724	3.266	4.626	5.806	6.804	7.620	8.255	8.709	8.981	9.071
4.15	6.37	0.000	1.714	3.248	4.601	5.774	6.766	7.578	8.210	8.661	8.931	9.021
4.18	6.36	0.000	1.705	3.230	4.575	5.742	6.729	7.536	8.164	8.613	8.882	8.971
4.21	6.35	0.000	1.695	3.212	4.550	5.710	6.691	7.494	8.119	8.565	8.832	8.922
4.23	6.34	0.000	1.686	3.194	4.524	5.678	6.654	7.452	8.073	8.517	8.783	8.872
4.26	6.33	0.000	1.676	3.176	4.499	5.646	6.616	7.410	8.028	8.469	8.733	8.822
4.28	6.32	0.000	1.667	3.158	4.474	5.614	6.579	7.368	7.982	8.421	8.684	8.772
4.31	6.31	0.000	1.657	3.140	4.448	5.582	6.541	7.326	7.937	8.373	8.634	8.722
4.33	6.30	0.000	1.648	3.122	4.423	5.550	6.504	7.284	7.891	8.325	8.585	8.672
4.35	6.29	0.000	1.638	3.104	4.397	5.518	6.466	7.242	7.846	8.277	8.536	8.622
4.38	6.28	0.000	1.629	3.086	4.372	5.486	6.429	7.200	7.800	8.229	8.486	8.572
4.40	6.27	0.000	1.619	3.068	4.346	5.454	6.391	7.158	7.755	8.181	8.437	8.522
4.43	6.26	0.000	1.610	3.050	4.321	5.422	6.354	7.116	7.709	8.133	8.387	8.472
4.45	6.25	0.000	1.600	3.032	4.295	5.390	6.316	7.074	7.664	8.085	8.338	8.422
4.48	6.24	0.000	1.591	3.014	4.270	5.358	6.279	7.032	7.618	8.037	8.288	8.372
4.50	6.23	0.000	1.581	2.996	4.244	5.326	6.242	6.990	7.573	7.990	8.239	8.322
4.52	6.22	0.000	1.572	2.978	4.219	5.294	6.204	6.949	7.528	7.941	8.189	8.272
4.55	6.21	0.000	1.562	2.960	4.193	5.262	6.167	6.907	7.482	7.893	8.140	8.222
4.57	6.20	0.000	1.553	2.942	4.168	5.230	6.129	6.865	7.437	7.845	8.090	8.172
4.60	6.19	0.000	1.543	2.924	4.142	5.198	6.092	6.823	7.391	7.797	8.041	8.122
4.62	6.18	0.000	1.534	2.906	4.117	5.166	6.054	6.781	7.346	7.749	7.991	8.072
4.64	6.17	0.000	1.524	2.888	4.091	5.134	6.017	6.739	7.300	7.701	7.942	8.022
4.67	6.16	0.000	1.515	2.870	4.066	5.102	5.979	6.697	7.255	7.653	7.893	7.972
4.69	6.15	0.000	1.505	2.852	4.040	5.070	5.942	6.655	7.209	7.605	7.843	7.922
4.71	6.14	0.000	1.496	2.834	4.015	5.038	5.904	6.613	7.164	7.557	7.794	7.872
4.74	6.13	0.000	1.486	2.816	3.989	5.006	5.867	6.571	7.118	7.510	7.744	7.822
4.76	6.12	0.000	1.477	2.798	3.964	4.974	5.829	6.529	7.073	7.462	7.695	7.772
4.78	6.11	0.000	1.467	2.780	3.938	4.942	5.792	6.487	7.027	7.414	7.645	7.722
4.80	6.10	0.000	1.458	2.762	3.913	4.910	5.754	6.445	6.982	7.366	7.596	7.673
4.83	6.09	0.000	1.448	2.744	3.888	4.878	5.717	6.403	6.937	7.318	7.546	7.623
4.85	6.08	0.000	1.439	2.726	3.862	4.846	5.679	6.361	6.891	7.270	7.497	7.573
4.87	6.07	0.000	1.429	2.708	3.837	4.814	5.642	6.319	6.846	7.222	7.447	7.523
4.90	6.06	0.000	1.420	2.690	3.811	4.783	5.605	6.277	6.800	7.174	7.398	7.473
4.92	6.05	0.000	1.410	2.672	3.786	4.751	5.567	6.235	6.755	7.126	7.349	7.423
4.94	6.04	0.000	1.401	2.654	3.760	4.719	5.530	6.193	6.709	7.078	7.299	7.373
4.96	6.03	0.000	1.391	2.636	3.735	4.687	5.492	6.151	6.664	7.030	7.250	7.323
4.99	6.02	0.000	1.382	2.618	3.709	4.655	5.455	6.109	6.618	6.982	7.200	7.273
5.01	6.01	0.000	1.372	2.600	3.684	4.623	5.417	6.067	6.573	6.934	7.151	7.223
5.03	6.00	0.000	1.363	2.582	3.658	4.591	5.380	6.025	6.527	6.886	7.101	7.173
5.05	5.99	0.000	1.353	2.564	3.633	4.559	5.342	5.983	6.482	6.838	7.052	7.123
5.07	5.98	0.000	1.344	2.546	3.607	4.527	5.305	5.941	6.436	6.790	7.002	7.073
5.10	5.97	0.000	1.334	2.528	3.582	4.495	5.267	5.899	6.391	6.742	6.953	7.023
5.12	5.96	0.000	1.325	2.510	3.556	4.463	5.230	5.857	6.346	6.694	6.903	6.973
5.14	5.95	0.000	1.315	2.492	3.531	4.431	5.192	5.815	6.300	6.646	6.854	6.923
5.16	5.94	0.000	1.306	2.474	3.505	4.399	5.155	5.773	6.255	6.598	6.804	6.873
5.18	5.93	0.000	1.296	2.456	3.480	4.367	5.117	5.732	6.209	6.550	6.755	6.823
5.20	5.92	0.000	1.287	2.438	3.454	4.335	5.080	5.690	6.164	6.502	6.706	6.773
5.23	5.91	0.000	1.277	2.420	3.429	4.303	5.042	5.648	6.118	6.454	6.656	6.723
5.25	5.90	0.000	1.268	2.402	3.403	4.271	5.005	5.606	6.073	6.406	6.607	6.673
5.27	5.89	0.000	1.258	2.384	3.378	4.239	4.968	5.564	6.027	6.358	6.557	6.623
5.29	5.88	0.000	1.249	2.366	3.352	4.207	4.930	5.522	5.982	6.310	6.508	6.573
5.31	5.87	0.000	1.239	2.348	3.327	4.175	4.893	5.480	5.936	6.263	6.458	6.523
5.33	5.86	0.000	1.230	2.330	3.301	4.143	4.855	5.438	5.891	6.215	6.409	6.474
5.35	5.85	0.000	1.220	2.312	3.276	4.111	4.818	5.396	5.845	6.167	6.359	6.424
5.37	5.84	0.000	1.211	2.294	3.251	4.079	4.780	5.354	5.800	6.119	6.310	6.374
5.40	5.83	0.000	1.201	2.277	3.225	4.047	4.743</					

5.56	5.75	0.000	1.126	2.133	3.021	3.791	4.443	4.970	5.391	5.687	5.885	5.924
5.58	5.74	0.000	1.116	2.115	2.996	3.759	4.405	4.934	5.345	5.639	5.815	5.874
5.60	5.73	0.000	1.107	2.097	2.970	3.727	4.368	4.892	5.300	5.591	5.766	5.824
5.62	5.72	0.000	1.097	2.079	2.945	3.695	4.331	4.850	5.254	5.543	5.716	5.774
5.64	5.71	0.000	1.088	2.061	2.919	3.663	4.293	4.808	5.209	5.495	5.667	5.724
5.66	5.70	0.000	1.078	2.043	2.894	3.631	4.256	4.766	5.163	5.447	5.617	5.674
5.68	5.69	0.000	1.069	2.025	2.868	3.599	4.218	4.724	5.118	5.399	5.568	5.624
5.70	5.68	0.000	1.059	2.007	2.843	3.568	4.181	4.682	5.073	5.351	5.518	5.574
5.72	5.67	0.000	1.050	1.989	2.817	3.536	4.143	4.640	5.027	5.303	5.469	5.524
5.74	5.66	0.000	1.040	1.971	2.792	3.504	4.106	4.598	4.982	5.255	5.420	5.474
5.76	5.65	0.000	1.031	1.953	2.766	3.472	4.068	4.556	4.936	5.207	5.370	5.424
5.78	5.64	0.000	1.021	1.935	2.741	3.440	4.031	4.514	4.891	5.159	5.321	5.374
5.80	5.63	0.000	1.012	1.917	2.715	3.408	3.993	4.473	4.845	5.111	5.271	5.324
5.82	5.62	0.000	1.002	1.899	2.690	3.376	3.956	4.431	4.800	5.063	5.222	5.274
5.84	5.61	0.000	0.993	1.881	2.665	3.344	3.918	4.389	4.754	5.016	5.172	5.225
5.86	5.60	0.000	0.983	1.863	2.639	3.312	3.881	4.347	4.709	4.968	5.123	5.175
5.88	5.59	0.000	0.974	1.845	2.614	3.280	3.843	4.305	4.663	4.920	5.073	5.125
5.90	5.58	0.000	0.964	1.827	2.588	3.248	3.806	4.263	4.618	4.872	5.024	5.075
5.92	5.57	0.000	0.955	1.809	2.563	3.216	3.769	4.221	4.572	4.824	4.974	5.025
5.94	5.56	0.000	0.945	1.791	2.537	3.184	3.731	4.179	4.527	4.776	4.925	4.975
5.96	5.55	0.000	0.936	1.773	2.512	3.152	3.694	4.137	4.482	4.728	4.876	4.925
5.98	5.54	0.000	0.926	1.755	2.486	3.120	3.656	4.095	4.436	4.680	4.826	4.875
6.00	5.53	0.000	0.917	1.737	2.461	3.088	3.619	4.053	4.391	4.632	4.777	4.825
6.02	5.52	0.000	0.907	1.719	2.435	3.056	3.581	4.011	4.345	4.584	4.727	4.775
6.04	5.51	0.000	0.898	1.701	2.410	3.024	3.544	3.969	4.300	4.536	4.678	4.725
6.06	5.50	0.000	0.888	1.683	2.384	2.992	3.506	3.927	4.254	4.488	4.628	4.675
6.07	5.49	0.000	0.879	1.665	2.359	2.960	3.469	3.885	4.209	4.440	4.579	4.625
6.09	5.48	0.000	0.869	1.647	2.333	2.928	3.431	3.843	4.163	4.392	4.529	4.575
6.11	5.47	0.000	0.860	1.629	2.308	2.896	3.394	3.801	4.118	4.344	4.480	4.525
6.13	5.46	0.000	0.850	1.611	2.282	2.864	3.356	3.759	4.072	4.296	4.430	4.475
6.15	5.45	0.000	0.841	1.593	2.257	2.832	3.319	3.717	4.027	4.248	4.381	4.425
6.17	5.44	0.000	0.831	1.575	2.231	2.800	3.281	3.675	3.981	4.200	4.331	4.375
6.19	5.43	0.000	0.822	1.557	2.206	2.768	3.244	3.633	3.936	4.152	4.282	4.325
6.21	5.42	0.000	0.812	1.539	2.180	2.736	3.206	3.591	3.891	4.104	4.233	4.275
6.22	5.41	0.000	0.803	1.521	2.155	2.704	3.169	3.549	3.845	4.056	4.183	4.225
6.24	5.40	0.000	0.793	1.503	2.129	2.672	3.132	3.507	3.800	4.008	4.134	4.175
6.26	5.39	0.000	0.784	1.485	2.104	2.640	3.094	3.465	3.754	3.960	4.084	4.125
6.28	5.38	0.000	0.774	1.467	2.078	2.608	3.057	3.423	3.709	3.912	4.035	4.075
6.30	5.37	0.000	0.765	1.449	2.053	2.576	3.019	3.381	3.663	3.864	3.985	4.025
6.32	5.36	0.000	0.755	1.431	2.028	2.544	2.982	3.339	3.618	3.817	3.936	3.975
6.34	5.35	0.000	0.746	1.413	2.002	2.512	2.944	3.297	3.572	3.769	3.886	3.926
6.35	5.34	0.000	0.736	1.395	1.977	2.480	2.907	3.256	3.527	3.721	3.837	3.876
6.37	5.33	0.000	0.727	1.377	1.951	2.448	2.869	3.214	3.481	3.673	3.787	3.826
6.39	5.32	0.000	0.717	1.359	1.926	2.416	2.832	3.172	3.436	3.625	3.738	3.776
6.41	5.31	0.000	0.708	1.341	1.900	2.384	2.794	3.130	3.390	3.577	3.688	3.726
6.43	5.30	0.000	0.698	1.323	1.875	2.352	2.757	3.088	3.345	3.529	3.639	3.676
6.44	5.29	0.000	0.689	1.305	1.849	2.321	2.719	3.046	3.299	3.481	3.590	3.626
6.46	5.28	0.000	0.679	1.287	1.824	2.289	2.682	3.004	3.254	3.433	3.540	3.576
6.48	5.27	0.000	0.670	1.269	1.798	2.257	2.644	2.962	3.209	3.385	3.491	3.526
6.50	5.26	0.000	0.660	1.251	1.773	2.225	2.607	2.920	3.163	3.337	3.441	3.476
6.52	5.25	0.000	0.651	1.233	1.747	2.193	2.569	2.878	3.118	3.289	3.392	3.426
6.53	5.24	0.000	0.641	1.215	1.722	2.161	2.532	2.836	3.072	3.241	3.342	3.376
6.55	5.23	0.000	0.632	1.197	1.696	2.129	2.495	2.794	3.027	3.193	3.293	3.326
6.57	5.22	0.000	0.622	1.179	1.671	2.097	2.457	2.752	2.981	3.145	3.243	3.276
6.59	5.21	0.000	0.613	1.161	1.645	2.065	2.420	2.710	2.936	3.097	3.194	3.226
6.61	5.20	0.000	0.603	1.143	1.620	2.033	2.382	2.668	2.890	3.049	3.144	3.176
6.62	5.19	0.000	0.594	1.125	1.594	2.001	2.345	2.626	2.845	3.001	3.095	3.126
6.64	5.18	0.000	0.584	1.107	1.569	1.969	2.307	2.584	2.799	2.953	3.045	3.076
6.66	5.17	0.000	0.575	1.089	1.543	1.937	2.270	2.542	2.754	2.905	2.998	3.026
6.68	5.16	0.000	0.566	1.071	1.518	1.905	2.232	2.500	2.708	2.857	2.947	2.976
6.69	5.15	0.000	0.556	1.053	1.492	1.873	2.195	2.458	2.663	2.809	2.897	2.926
6.71	5.14	0.000	0.547	1.036	1.467	1.841	2.157	2.416	2.618	2.761	2.848	2.876
6.73	5.13	0.000	0.537	1.018	1.441	1.809	2.120	2.374	2.572	2.713	2.798	2.826
6.75	5.12	0.000	0.528	1.000	1.416	1.777	2.082	2.332	2.527	2.665	2.749	2.777
6.76	5.11	0.000	0.518	0.982	1.391	1.745	2.045	2.290	2.481	2.617	2.699	2.727
6.78	5.10	0.000	0.509	0.964	1.365	1.713	2.007	2.248	2.436	2.570	2.650	2.677
6.80	5.09	0.000	0.499	0.946	1.340	1.681	1.970	2.206	2.390	2.522	2.600	2.627
6.81	5.08	0.000	0.490	0.928	1.314	1.649	1.932	2.164	2.345	2.474	2.551	2.577
6.83	5.07	0.000	0.480	0.910	1.289	1.617	1.895	2.122	2.299	2.426	2.501	2.527
6.85	5.06	0.000	0.471	0.892	1.263	1.585	1.858	2.080	2.254	2.378	2.452	2.477
6.87	5.05	0.000	0.461	0.874	1.238	1.553	1.820	2.039	2.208	2.330	2.403	2.427
6.88	5.04	0.000	0.452	0.856	1.212	1.521	1.783	1.997	2.163	2.282	2.353	2.377
6.90	5.03	0.000	0.442	0.838	1.187	1.489	1.745	1.955	2.117	2.234	2.304	2.327
6.92	5.02	0.000	0.433	0.820	1.161	1.457	1.708	1.913	2.072	2.186	2.254	2.277
6.93	5.01	0.000	0.423	0.802	1.136	1.425	1.670	1.871	2.027	2.138	2.205	2.227
6.95	5.00	0.000	0.414	0.784	1.110	1.393	1.633	1.829	1.981	2.090	2.155	2.177
6.97	4.99	0.000	0.404	0.766	1.085	1.361	1.595	1.787	1.936	2.042	2.106	2.127
6.98	4.98	0.000	0.395	0.748	1.059	1.329	1.558	1.745	1.890	1.994	2.056	2.077
7.00	4.97	0.000	0.385	0.730	1.034	1.297	1.520	1.703	1.845	1.946	2.007	2.027
7.02	4.96	0.000	0.376	0.712	1.008	1.265	1.483	1.661	1.799	1.898	1.957	1.977
7.03	4.95	0.000	0.366	0.694	0.983	1.233	1.445	1.619	1.754	1.850	1.908	1.927
7.05	4.94	0.000	0.357	0.676	0.957	1.201	1.408	1.577	1.708	1.802	1.858	1.877
7.07	4.93	0.000	0.347	0.658	0.932	1.169	1.370	1.535	1.663	1.754	1.809	1.827
7.08	4.92	0.000	0.338	0.640	0.906	1.137	1.333	1.493	1.617	1.706	1.760	1.777
7.10	4.91	0.000	0.328	0.622	0.881	1.106	1.296	1.451	1.572	1.658	1.710	1.727
7.12	4.90	0.000	0.319	0.604	0.855	1.074	1.258	1.409	1.526	1.610	1.661	1.677
7.13	4.89	0.000	0.309	0.586	0.830	1.042	1.221	1.367	1.481	1.562	1.611	1.627
7.15	4.88	0.000	0.300	0.568	0.805	1.010	1.183	1.325	1.436	1.514	1.562	1.577
7.17	4.87	0.000	0.290	0.550	0.779	0.978	1.146	1.283	1.390	1.466	1.512	1.528
7.18	4.86	0.000	0.281	0.532	0.754	0.946	1.108	1.241	1.345	1.418	1.463	1.478
7.20	4.85	0.000	0.271	0.514	0.728	0.914	1.071	1.199	1.299	1.370	1.413	1.428
7.22	4.84	0.000	0.262	0.496	0.703	0.882	1.033	1.157	1.254	1.323	1.364	

7.34	4.78	0.000	0.186	0.352	0.499	0.626	0.733	0.821	0.890	0.939	0.968	0.978
7.36	4.75	0.000	0.176	0.334	0.473	0.594	0.696	0.780	0.844	0.891	0.919	0.928
7.38	4.74	0.000	0.167	0.316	0.448	0.562	0.659	0.738	0.799	0.843	0.869	0.878
7.39	4.73	0.000	0.157	0.298	0.422	0.530	0.621	0.696	0.754	0.795	0.820	0.828
7.41	4.72	0.000	0.148	0.280	0.397	0.498	0.584	0.654	0.708	0.747	0.770	0.778
7.42	4.71	0.000	0.138	0.262	0.371	0.466	0.546	0.612	0.663	0.699	0.721	0.728
7.44	4.70	0.000	0.129	0.244	0.346	0.434	0.509	0.570	0.617	0.651	0.671	0.678
7.46	4.69	0.000	0.119	0.226	0.320	0.402	0.471	0.528	0.572	0.603	0.622	0.628
7.47	4.68	0.000	0.110	0.208	0.295	0.370	0.434	0.486	0.526	0.555	0.573	0.578
7.49	4.67	0.000	0.100	0.190	0.269	0.338	0.396	0.444	0.481	0.507	0.523	0.528
7.50	4.66	0.000	0.091	0.172	0.244	0.306	0.359	0.402	0.435	0.459	0.474	0.478
7.52	4.65	0.000	0.081	0.154	0.218	0.274	0.321	0.360	0.390	0.411	0.424	0.428
7.53	4.64	0.000	0.072	0.136	0.193	0.242	0.284	0.318	0.344	0.363	0.375	0.378
7.55	4.63	0.000	0.062	0.118	0.168	0.210	0.246	0.276	0.299	0.315	0.325	0.328
7.56	4.62	0.000	0.053	0.100	0.142	0.178	0.209	0.234	0.253	0.267	0.276	0.279
7.58	4.61	0.000	0.043	0.082	0.117	0.146	0.171	0.192	0.208	0.219	0.226	0.229
7.60	4.60	0.000	0.034	0.064	0.091	0.114	0.134	0.150	0.163	0.171	0.177	0.179
7.61	4.59	0.000	0.024	0.046	0.066	0.082	0.096	0.108	0.117	0.124	0.127	0.129
7.63	4.58	0.000	0.015	0.028	0.040	0.050	0.059	0.066	0.072	0.076	0.078	0.079
7.64	4.57	0.000	0.005	0.010	0.015	0.018	0.022	0.024	0.026	0.028	0.028	0.029
7.66	4.56	0.000	-0.004	-0.008	-0.011	-0.014	-0.016	-0.018	-0.019	-0.020	-0.021	-0.021
7.67	4.55	0.000	-0.014	-0.026	-0.036	-0.046	-0.053	-0.060	-0.065	-0.068	-0.070	-0.071
7.69	4.54	0.000	-0.023	-0.044	-0.062	-0.078	-0.091	-0.102	-0.110	-0.116	-0.120	-0.121
7.70	4.53	0.000	-0.033	-0.062	-0.087	-0.110	-0.128	-0.144	-0.156	-0.164	-0.169	-0.171
7.72	4.52	0.000	-0.042	-0.080	-0.113	-0.141	-0.166	-0.186	-0.201	-0.212	-0.219	-0.221
7.73	4.51	0.000	-0.051	-0.098	-0.138	-0.173	-0.203	-0.228	-0.247	-0.260	-0.268	-0.271
7.75	4.50	0.000	-0.061	-0.116	-0.164	-0.205	-0.241	-0.270	-0.292	-0.308	-0.318	-0.321
7.76	4.49	0.000	-0.070	-0.134	-0.189	-0.237	-0.278	-0.312	-0.338	-0.356	-0.367	-0.371
7.78	4.48	0.000	-0.080	-0.152	-0.215	-0.269	-0.316	-0.354	-0.383	-0.404	-0.417	-0.421
7.79	4.47	0.000	-0.089	-0.170	-0.240	-0.301	-0.353	-0.396	-0.428	-0.452	-0.466	-0.471
7.81	4.46	0.000	-0.099	-0.187	-0.266	-0.333	-0.391	-0.437	-0.474	-0.500	-0.516	-0.521
7.82	4.45	0.000	-0.108	-0.205	-0.291	-0.365	-0.428	-0.479	-0.519	-0.548	-0.565	-0.571
7.84	4.44	0.000	-0.118	-0.223	-0.317	-0.397	-0.466	-0.521	-0.565	-0.596	-0.615	-0.621
7.85	4.43	0.000	-0.127	-0.241	-0.342	-0.429	-0.503	-0.563	-0.610	-0.644	-0.664	-0.671
7.87	4.42	0.000	-0.137	-0.259	-0.368	-0.461	-0.540	-0.605	-0.656	-0.692	-0.713	-0.721
7.88	4.41	0.000	-0.146	-0.277	-0.393	-0.493	-0.578	-0.647	-0.701	-0.740	-0.763	-0.771
7.90	4.40	0.000	-0.156	-0.295	-0.418	-0.525	-0.615	-0.689	-0.747	-0.788	-0.812	-0.821
7.91	4.39	0.000	-0.165	-0.313	-0.444	-0.557	-0.653	-0.731	-0.792	-0.836	-0.862	-0.871
7.93	4.38	0.000	-0.175	-0.331	-0.469	-0.589	-0.690	-0.773	-0.838	-0.884	-0.911	-0.920
7.94	4.37	0.000	-0.184	-0.349	-0.495	-0.621	-0.728	-0.815	-0.883	-0.932	-0.961	-0.970
7.96	4.36	0.000	-0.194	-0.367	-0.520	-0.653	-0.765	-0.857	-0.929	-0.980	-1.010	-1.020
7.97	4.35	0.000	-0.203	-0.385	-0.546	-0.685	-0.803	-0.899	-0.974	-1.028	-1.060	-1.070
7.99	4.34	0.000	-0.213	-0.403	-0.571	-0.717	-0.840	-0.941	-1.020	-1.076	-1.109	-1.120
8.00	4.33	0.000	-0.222	-0.421	-0.597	-0.749	-0.878	-0.983	-1.065	-1.123	-1.159	-1.170
8.02	4.32	0.000	-0.232	-0.439	-0.622	-0.781	-0.915	-1.025	-1.110	-1.171	-1.208	-1.220
8.03	4.31	0.000	-0.241	-0.457	-0.648	-0.813	-0.953	-1.067	-1.156	-1.219	-1.258	-1.270
8.05	4.30	0.000	-0.251	-0.475	-0.673	-0.845	-0.990	-1.109	-1.201	-1.267	-1.307	-1.320
8.06	4.29	0.000	-0.260	-0.493	-0.699	-0.877	-1.028	-1.151	-1.247	-1.315	-1.356	-1.370
8.07	4.28	0.000	-0.270	-0.511	-0.724	-0.909	-1.065	-1.193	-1.292	-1.363	-1.406	-1.420
8.09	4.27	0.000	-0.279	-0.529	-0.750	-0.941	-1.103	-1.235	-1.338	-1.411	-1.455	-1.470
8.10	4.26	0.000	-0.289	-0.547	-0.775	-0.973	-1.140	-1.277	-1.383	-1.459	-1.505	-1.520
8.12	4.25	0.000	-0.298	-0.565	-0.801	-1.005	-1.177	-1.319	-1.429	-1.507	-1.554	-1.570
8.13	4.24	0.000	-0.308	-0.583	-0.826	-1.037	-1.215	-1.361	-1.474	-1.555	-1.604	-1.620
8.15	4.23	0.000	-0.317	-0.601	-0.852	-1.069	-1.252	-1.403	-1.520	-1.603	-1.653	-1.670
8.16	4.22	0.000	-0.327	-0.619	-0.877	-1.101	-1.290	-1.445	-1.565	-1.651	-1.703	-1.720
8.18	4.21	0.000	-0.336	-0.637	-0.903	-1.133	-1.327	-1.487	-1.611	-1.699	-1.752	-1.770
8.19	4.20	0.000	-0.346	-0.655	-0.928	-1.165	-1.365	-1.529	-1.656	-1.747	-1.802	-1.820
8.20	4.19	0.000	-0.355	-0.673	-0.954	-1.197	-1.402	-1.571	-1.701	-1.795	-1.851	-1.870
8.22	4.18	0.000	-0.365	-0.691	-0.979	-1.229	-1.440	-1.613	-1.747	-1.843	-1.900	-1.920
8.23	4.17	0.000	-0.374	-0.709	-1.005	-1.261	-1.477	-1.655	-1.792	-1.891	-1.950	-1.970
8.25	4.16	0.000	-0.384	-0.727	-1.030	-1.293	-1.515	-1.696	-1.838	-1.939	-1.999	-2.020
8.26	4.15	0.000	-0.393	-0.745	-1.055	-1.325	-1.552	-1.738	-1.883	-1.987	-2.049	-2.070
8.27	4.14	0.000	-0.403	-0.763	-1.081	-1.356	-1.590	-1.780	-1.929	-2.035	-2.098	-2.120
8.29	4.13	0.000	-0.412	-0.781	-1.106	-1.388	-1.627	-1.822	-1.974	-2.083	-2.148	-2.169
8.30	4.12	0.000	-0.422	-0.799	-1.132	-1.420	-1.665	-1.864	-2.020	-2.131	-2.197	-2.219
8.32	4.11	0.000	-0.431	-0.817	-1.157	-1.452	-1.702	-1.906	-2.065	-2.179	-2.247	-2.269
8.33	4.10	0.000	-0.441	-0.835	-1.183	-1.484	-1.740	-1.948	-2.111	-2.227	-2.296	-2.319
8.35	4.09	0.000	-0.450	-0.853	-1.208	-1.516	-1.778	-1.990	-2.156	-2.275	-2.346	-2.369
8.36	4.08	0.000	-0.460	-0.871	-1.234	-1.548	-1.814	-2.032	-2.202	-2.323	-2.395	-2.419
8.37	4.07	0.000	-0.469	-0.889	-1.259	-1.580	-1.852	-2.074	-2.247	-2.370	-2.445	-2.469
8.39	4.06	0.000	-0.479	-0.907	-1.285	-1.612	-1.889	-2.116	-2.292	-2.418	-2.494	-2.519
8.40	4.05	0.000	-0.488	-0.925	-1.310	-1.644	-1.927	-2.158	-2.338	-2.466	-2.543	-2.569
8.41	4.04	0.000	-0.498	-0.943	-1.336	-1.676	-1.964	-2.200	-2.383	-2.514	-2.593	-2.619
8.43	4.03	0.000	-0.507	-0.961	-1.361	-1.708	-2.002	-2.242	-2.429	-2.562	-2.642	-2.669
8.44	4.02	0.000	-0.517	-0.979	-1.387	-1.740	-2.039	-2.284	-2.474	-2.610	-2.692	-2.719
8.46	4.01	0.000	-0.526	-0.997	-1.412	-1.772	-2.077	-2.326	-2.520	-2.658	-2.741	-2.769
8.47	4.00	0.000	-0.536	-1.015	-1.438	-1.804	-2.114	-2.368	-2.565	-2.706	-2.791	-2.819
8.48	3.99	0.000	-0.545	-1.033	-1.463	-1.836	-2.152	-2.410	-2.611	-2.754	-2.840	-2.869
8.50	3.98	0.000	-0.555	-1.051	-1.489	-1.868	-2.189	-2.452	-2.656	-2.802	-2.890	-2.919
8.51	3.97	0.000	-0.564	-1.069	-1.514	-1.900	-2.227	-2.494	-2.702	-2.850	-2.939	-2.969
8.52	3.96	0.000	-0.574	-1.087	-1.540	-1.932	-2.264	-2.536	-2.747	-2.898	-2.989	-3.019
8.54	3.95	0.000	-0.583	-1.105	-1.565	-1.964	-2.302	-2.578	-2.793	-2.946	-3.038	-3.069
8.55	3.94	0.000	-0.593	-1.123	-1.591	-1.996	-2.339	-2.620	-2.838	-2.994	-3.088	-3.119
8.57	3.93	0.000	-0.602	-1.141	-1.616	-2.028	-2.377	-2.662	-2.883	-3.042	-3.137	-3.169
8.58	3.92	0.000	-0.612	-1.159	-1.642	-2.060	-2.414	-2.704	-2.929	-3.090	-3.186	-3.219
8.59	3.91	0.000	-0.621	-1.177	-1.667	-2.092	-2.451	-2.746	-2.974	-3.138	-3.236	-3.269
8.61	3.90	0.000	-0.631	-1.195	-1.692	-2.124	-2.489	-2.788	-3.020	-3.186	-3.285	-3.319
8.62	3.89	0.000	-0.640	-1.213	-1.718	-2.156	-2.526	-2.830	-3.065	-3.234	-3.335	-3.369
8.63	3.88	0.000	-0.650	-1.231	-1.743	-2.188	-2.564	-2.872	-3.111	-3.282	-3.384	-3.418
8.65	3.87	0.000	-0.659	-1.249	-1.769	-2.220	-2.601	-2.913	-3.158	-3.330	-3.434	-3.468
8.66	3.86	0.000	-0.668	-1.267	-1.794	-2.252	-2.639	-2.955	-3.202	-3.378	-3.483	-3.518
8.67	3.85	0.000	-0.678	-1.285	-1.820	-2.284	-2.676	-2.997	-3.247	-3.426	-3.533	-

8.78	3.77	0.000	-0.754	-1.428	-2.024	-2.540	-2.976	-3.333	-3.611	-3.809	-3.928	-3.968
8.79	3.78	0.000	-0.763	-1.446	-2.049	-2.572	-3.013	-3.375	-3.656	-3.857	-3.978	-4.018
8.81	3.75	0.000	-0.773	-1.464	-2.075	-2.603	-3.051	-3.417	-3.702	-3.905	-4.027	-4.068
8.82	3.74	0.000	-0.782	-1.482	-2.100	-2.635	-3.088	-3.459	-3.747	-3.953	-4.077	-4.118
8.83	3.73	0.000	-0.792	-1.500	-2.126	-2.667	-3.126	-3.501	-3.793	-3.991	-4.126	-4.168
8.85	3.72	0.000	-0.801	-1.518	-2.151	-2.699	-3.163	-3.543	-3.838	-4.049	-4.176	-4.218
8.86	3.71	0.000	-0.811	-1.536	-2.177	-2.731	-3.201	-3.585	-3.884	-4.097	-4.225	-4.268
8.87	3.70	0.000	-0.820	-1.554	-2.202	-2.763	-3.238	-3.627	-3.929	-4.145	-4.275	-4.318
8.88	3.69	0.000	-0.830	-1.572	-2.228	-2.795	-3.276	-3.669	-3.975	-4.193	-4.324	-4.368
8.80	3.88	0.000	-0.839	-1.590	-2.253	-2.827	-3.313	-3.711	-4.020	-4.241	-4.373	-4.418
8.91	3.67	0.000	-0.849	-1.608	-2.278	-2.859	-3.351	-3.753	-4.066	-4.289	-4.423	-4.468
8.92	3.66	0.000	-0.858	-1.626	-2.304	-2.891	-3.388	-3.795	-4.111	-4.337	-4.472	-4.518
8.94	3.65	0.000	-0.868	-1.644	-2.329	-2.923	-3.426	-3.837	-4.156	-4.385	-4.522	-4.568
8.95	3.64	0.000	-0.877	-1.662	-2.355	-2.955	-3.463	-3.879	-4.202	-4.433	-4.571	-4.618
8.96	3.63	0.000	-0.887	-1.680	-2.380	-2.987	-3.501	-3.921	-4.247	-4.481	-4.621	-4.667
8.97	3.62	0.000	-0.896	-1.698	-2.406	-3.019	-3.538	-3.963	-4.293	-4.529	-4.670	-4.717
8.99	3.61	0.000	-0.906	-1.716	-2.431	-3.051	-3.576	-4.005	-4.338	-4.577	-4.720	-4.767
9.00	3.60	0.000	-0.915	-1.734	-2.457	-3.083	-3.613	-4.047	-4.384	-4.625	-4.769	-4.817
9.01	3.59	0.000	-0.925	-1.752	-2.482	-3.115	-3.650	-4.089	-4.429	-4.673	-4.819	-4.867
9.03	3.58	0.000	-0.934	-1.770	-2.508	-3.147	-3.688	-4.130	-4.475	-4.721	-4.868	-4.917
9.04	3.57	0.000	-0.944	-1.788	-2.533	-3.179	-3.725	-4.172	-4.520	-4.769	-4.918	-4.967
9.05	3.56	0.000	-0.953	-1.806	-2.559	-3.211	-3.763	-4.214	-4.566	-4.816	-4.967	-5.017
9.06	3.55	0.000	-0.963	-1.824	-2.584	-3.243	-3.800	-4.256	-4.611	-4.864	-5.016	-5.067
9.08	3.54	0.000	-0.972	-1.842	-2.610	-3.275	-3.838	-4.298	-4.657	-4.912	-5.066	-5.117
9.09	3.53	0.000	-0.982	-1.860	-2.635	-3.307	-3.875	-4.340	-4.702	-4.960	-5.115	-5.167
9.10	3.52	0.000	-0.991	-1.878	-2.661	-3.339	-3.913	-4.382	-4.747	-5.008	-5.165	-5.217
9.11	3.51	0.000	-1.001	-1.896	-2.686	-3.371	-3.950	-4.424	-4.793	-5.056	-5.214	-5.267
9.13	3.50	0.000	-1.010	-1.914	-2.712	-3.403	-3.988	-4.466	-4.838	-5.104	-5.264	-5.317
9.14	3.49	0.000	-1.020	-1.932	-2.737	-3.435	-4.025	-4.508	-4.884	-5.152	-5.313	-5.367
9.15	3.48	0.000	-1.029	-1.950	-2.763	-3.467	-4.063	-4.550	-4.929	-5.200	-5.363	-5.417
9.17	3.47	0.000	-1.039	-1.968	-2.788	-3.499	-4.100	-4.592	-4.975	-5.248	-5.412	-5.467
9.18	3.46	0.000	-1.048	-1.986	-2.814	-3.531	-4.138	-4.634	-5.020	-5.296	-5.462	-5.517
9.19	3.45	0.000	-1.058	-2.004	-2.839	-3.563	-4.175	-4.676	-5.066	-5.344	-5.511	-5.567
9.20	3.44	0.000	-1.067	-2.022	-2.865	-3.595	-4.213	-4.718	-5.111	-5.392	-5.561	-5.617
9.22	3.43	0.000	-1.077	-2.040	-2.890	-3.627	-4.250	-4.760	-5.157	-5.440	-5.610	-5.667
9.23	3.42	0.000	-1.086	-2.058	-2.915	-3.659	-4.287	-4.802	-5.202	-5.488	-5.659	-5.717
9.24	3.41	0.000	-1.096	-2.076	-2.941	-3.691	-4.325	-4.844	-5.248	-5.536	-5.709	-5.767
9.25	3.40	0.000	-1.105	-2.094	-2.966	-3.723	-4.362	-4.886	-5.293	-5.584	-5.758	-5.817
9.26	3.39	0.000	-1.115	-2.112	-2.992	-3.755	-4.400	-4.928	-5.339	-5.632	-5.808	-5.868
9.28	3.38	0.000	-1.124	-2.130	-3.017	-3.787	-4.437	-4.970	-5.384	-5.680	-5.857	-5.918
9.29	3.37	0.000	-1.134	-2.148	-3.043	-3.819	-4.475	-5.012	-5.429	-5.728	-5.907	-5.968
9.30	3.36	0.000	-1.143	-2.166	-3.068	-3.850	-4.512	-5.054	-5.475	-5.776	-5.956	-6.018
9.31	3.35	0.000	-1.153	-2.184	-3.094	-3.882	-4.550	-5.096	-5.520	-5.824	-6.005	-6.068
9.33	3.34	0.000	-1.162	-2.202	-3.119	-3.914	-4.587	-5.138	-5.566	-5.872	-6.055	-6.118
9.34	3.33	0.000	-1.172	-2.220	-3.145	-3.946	-4.625	-5.180	-5.611	-5.920	-6.105	-6.168
9.35	3.32	0.000	-1.181	-2.238	-3.170	-3.978	-4.662	-5.222	-5.657	-5.968	-6.154	-6.218
9.36	3.31	0.000	-1.191	-2.256	-3.196	-4.010	-4.700	-5.264	-5.702	-6.016	-6.204	-6.268
9.38	3.30	0.000	-1.200	-2.274	-3.221	-4.042	-4.737	-5.306	-5.748	-6.063	-6.253	-6.318
9.39	3.29	0.000	-1.210	-2.292	-3.247	-4.074	-4.775	-5.348	-5.793	-6.111	-6.302	-6.368
9.40	3.28	0.000	-1.219	-2.310	-3.272	-4.106	-4.812	-5.389	-5.839	-6.159	-6.352	-6.418
9.41	3.27	0.000	-1.229	-2.328	-3.298	-4.138	-4.850	-5.431	-5.884	-6.207	-6.401	-6.468
9.42	3.26	0.000	-1.238	-2.346	-3.323	-4.170	-4.887	-5.473	-5.930	-6.255	-6.451	-6.518
9.44	3.25	0.000	-1.248	-2.364	-3.349	-4.202	-4.924	-5.515	-5.975	-6.303	-6.500	-6.568
9.45	3.24	0.000	-1.257	-2.382	-3.374	-4.234	-4.962	-5.557	-6.020	-6.351	-6.550	-6.618
9.46	3.23	0.000	-1.267	-2.400	-3.400	-4.266	-4.999	-5.599	-6.066	-6.399	-6.599	-6.668
9.47	3.22	0.000	-1.276	-2.418	-3.425	-4.298	-5.037	-5.641	-6.111	-6.447	-6.649	-6.718
9.48	3.21	0.000	-1.285	-2.436	-3.451	-4.330	-5.074	-5.683	-6.157	-6.495	-6.698	-6.768
9.50	3.20	0.000	-1.295	-2.454	-3.476	-4.362	-5.112	-5.725	-6.202	-6.543	-6.748	-6.818
9.51	3.19	0.000	-1.304	-2.472	-3.501	-4.394	-5.149	-5.767	-6.248	-6.591	-6.797	-6.868
9.52	3.18	0.000	-1.314	-2.490	-3.527	-4.426	-5.187	-5.809	-6.293	-6.639	-6.846	-6.918
9.53	3.17	0.000	-1.323	-2.508	-3.552	-4.458	-5.224	-5.851	-6.339	-6.687	-6.896	-6.968
9.54	3.16	0.000	-1.333	-2.526	-3.578	-4.490	-5.262	-5.893	-6.384	-6.735	-6.945	-7.018
9.56	3.15	0.000	-1.342	-2.544	-3.603	-4.522	-5.299	-5.935	-6.430	-6.783	-6.995	-7.068
9.57	3.14	0.000	-1.352	-2.562	-3.629	-4.554	-5.337	-5.977	-6.475	-6.831	-7.044	-7.118
9.58	3.13	0.000	-1.361	-2.580	-3.654	-4.586	-5.374	-6.019	-6.521	-6.879	-7.094	-7.168
9.59	3.12	0.000	-1.371	-2.598	-3.680	-4.618	-5.412	-6.061	-6.566	-6.927	-7.143	-7.218
9.60	3.11	0.000	-1.380	-2.616	-3.705	-4.650	-5.449	-6.103	-6.611	-6.975	-7.193	-7.268
9.61	3.10	0.000	-1.390	-2.634	-3.731	-4.682	-5.486	-6.145	-6.657	-7.023	-7.242	-7.318
9.63	3.09	0.000	-1.399	-2.651	-3.756	-4.714	-5.524	-6.187	-6.702	-7.071	-7.292	-7.368
9.64	3.08	0.000	-1.409	-2.669	-3.782	-4.746	-5.561	-6.229	-6.748	-7.119	-7.341	-7.418
9.65	3.07	0.000	-1.418	-2.687	-3.807	-4.778	-5.599	-6.271	-6.793	-7.167	-7.391	-7.468
9.66	3.06	0.000	-1.428	-2.705	-3.833	-4.810	-5.636	-6.313	-6.839	-7.215	-7.440	-7.518
9.67	3.05	0.000	-1.437	-2.723	-3.858	-4.842	-5.674	-6.355	-6.884	-7.263	-7.489	-7.568
9.69	3.04	0.000	-1.447	-2.741	-3.884	-4.874	-5.711	-6.397	-6.930	-7.310	-7.539	-7.618
9.70	3.03	0.000	-1.456	-2.759	-3.909	-4.906	-5.749	-6.439	-6.975	-7.358	-7.588	-7.668
9.71	3.02	0.000	-1.466	-2.777	-3.935	-4.938	-5.786	-6.481	-7.021	-7.406	-7.638	-7.718
9.72	3.01	0.000	-1.475	-2.795	-3.960	-4.970	-5.824	-6.523	-7.066	-7.454	-7.687	-7.768
9.73	3.00	0.000	-1.485	-2.813	-3.986	-4.992	-5.861	-6.565	-7.112	-7.502	-7.737	-7.818
9.74	2.99	0.000	-1.494	-2.831	-4.011	-5.034	-5.899	-6.606	-7.157	-7.550	-7.786	-7.868
9.75	2.98	0.000	-1.504	-2.849	-4.037	-5.065	-5.936	-6.648	-7.202	-7.598	-7.836	-7.918
9.77	2.97	0.000	-1.513	-2.867	-4.062	-5.097	-5.974	-6.690	-7.248	-7.646	-7.885	-7.968
9.78	2.96	0.000	-1.523	-2.885	-4.088	-5.129	-6.011	-6.732	-7.293	-7.694	-7.935	-8.018
9.79	2.95	0.000	-1.532	-2.903	-4.113	-5.161	-6.049	-6.774	-7.339	-7.742	-7.984	-8.068
9.80	2.94	0.000	-1.542	-2.921	-4.138	-5.193	-6.086	-6.816	-7.384	-7.790	-8.034	-8.118
9.81	2.93	0.000	-1.551	-2.939	-4.164	-5.225	-6.123	-6.858	-7.430	-7.838	-8.083	-8.168
9.82	2.92	0.000	-1.561	-2.957	-4.189	-5.257	-6.161	-6.900	-7.475	-7.886	-8.132	-8.218
9.84	2.91	0.000	-1.570	-2.975	-4.215	-5.289	-6.198	-6.942	-7.521	-7.934	-8.182	-8.268
9.85	2.90	0.000	-1.580	-2.993	-4.240	-5.321	-6.236	-7.084	-7.566	-7.982	-8.231	-8.318
9.86	2.89	0.000	-1.589	-3.011	-4.266	-5.353	-6.273	-7.026	-7.612	-8.030	-8.281	-8.368
9.87	2.88	0.000	-1.599	-3.029	-4.291	-5.385	-6.311	-7.068	-7.657	-8.078	-8.330	-8.418
9.88	2.87	0.000	-1.608	-3.047	-4.317	-5.417	-6.348	-7.110	-7.703	-8.126	-8.380	-8.468
9.89	2.86	0.000	-1.618	-3.065	-4.342	-5.449	-6.386	-7.152	-7.748	-8.174	-8.429	-

9.96	2.78	0.000	-1.694	-3.209	-4.546	-5.705	-6.686	-7.488	-8.112	-8.557	-8.825	-8.914
9.99	2.77	0.000	-1.703	-3.227	-4.572	-5.737	-6.723	-7.530	-8.157	-8.605	-8.874	-8.964
10.00	2.76	0.000	-1.713	-3.245	-4.597	-5.769	-6.760	-7.572	-8.203	-8.653	-8.924	-9.014
10.02	2.75	0.000	-1.722	-3.263	-4.623	-5.801	-6.798	-7.614	-8.248	-8.701	-8.973	-9.064
10.03	2.74	0.000	-1.732	-3.281	-4.648	-5.833	-6.835	-7.656	-8.294	-8.749	-9.023	-9.114
10.04	2.73	0.000	-1.741	-3.299	-4.674	-5.865	-6.873	-7.698	-8.339	-8.797	-9.072	-9.164
10.05	2.72	0.000	-1.751	-3.317	-4.699	-5.897	-6.910	-7.740	-8.385	-8.845	-9.122	-9.214
10.06	2.71	0.000	-1.760	-3.335	-4.725	-5.929	-6.948	-7.782	-8.430	-8.893	-9.171	-9.264
10.07	2.70	0.000	-1.770	-3.353	-4.750	-5.961	-6.985	-7.824	-8.475	-8.941	-9.221	-9.314
10.08	2.69	0.000	-1.779	-3.371	-4.775	-5.993	-7.023	-7.865	-8.521	-8.989	-9.270	-9.364
10.09	2.68	0.000	-1.789	-3.389	-4.801	-6.025	-7.060	-7.907	-8.566	-9.037	-9.319	-9.414
10.10	2.67	0.000	-1.798	-3.407	-4.826	-6.057	-7.098	-7.949	-8.612	-9.085	-9.369	-9.464
10.12	2.66	0.000	-1.808	-3.425	-4.852	-6.089	-7.135	-7.991	-8.657	-9.133	-9.418	-9.514
10.13	2.65	0.000	-1.817	-3.443	-4.877	-6.121	-7.173	-8.033	-8.703	-9.181	-9.468	-9.563
10.14	2.64	0.000	-1.827	-3.461	-4.903	-6.153	-7.210	-8.075	-8.748	-9.229	-9.517	-9.613
10.15	2.63	0.000	-1.836	-3.479	-4.928	-6.185	-7.248	-8.117	-8.794	-9.277	-9.567	-9.663
10.16	2.62	0.000	-1.846	-3.497	-4.954	-6.217	-7.285	-8.159	-8.839	-9.325	-9.616	-9.713
10.17	2.61	0.000	-1.855	-3.515	-4.979	-6.249	-7.322	-8.201	-8.885	-9.373	-9.666	-9.763
10.18	2.60	0.000	-1.865	-3.533	-5.005	-6.281	-7.360	-8.243	-8.930	-9.421	-9.715	-9.813
10.19	2.59	0.000	-1.874	-3.551	-5.030	-6.312	-7.397	-8.285	-8.976	-9.469	-9.765	-9.863
10.20	2.58	0.000	-1.884	-3.569	-5.056	-6.344	-7.435	-8.327	-9.021	-9.517	-9.814	-9.913
10.21	2.57	0.000	-1.893	-3.587	-5.081	-6.376	-7.472	-8.369	-9.066	-9.565	-9.864	-9.963
10.23	2.56	0.000	-1.902	-3.605	-5.107	-6.408	-7.510	-8.411	-9.112	-9.613	-9.913	-10.013
10.24	2.55	0.000	-1.912	-3.623	-5.132	-6.440	-7.547	-8.453	-9.157	-9.661	-9.962	-10.063
10.25	2.54	0.000	-1.921	-3.641	-5.158	-6.472	-7.585	-8.495	-9.203	-9.709	-10.012	-10.113
10.26	2.53	0.000	-1.931	-3.659	-5.183	-6.504	-7.622	-8.537	-9.248	-9.756	-10.061	-10.163
10.27	2.52	0.000	-1.940	-3.677	-5.209	-6.536	-7.660	-8.579	-9.294	-9.804	-10.111	-10.213
10.28	2.51	0.000	-1.950	-3.695	-5.234	-6.568	-7.697	-8.621	-9.339	-9.852	-10.160	-10.263
10.29	2.50	0.000	-1.959	-3.713	-5.260	-6.600	-7.735	-8.663	-9.385	-9.900	-10.210	-10.313
10.30	2.49	0.000	-1.969	-3.731	-5.285	-6.632	-7.772	-8.705	-9.430	-9.948	-10.259	-10.363
10.31	2.48	0.000	-1.978	-3.749	-5.311	-6.664	-7.810	-8.747	-9.476	-9.995	-10.309	-10.413
10.32	2.47	0.000	-1.988	-3.767	-5.336	-6.696	-7.847	-8.789	-9.521	-10.044	-10.358	-10.463
10.33	2.46	0.000	-1.997	-3.785	-5.361	-6.728	-7.885	-8.831	-9.567	-10.092	-10.408	-10.513
10.34	2.45	0.000	-2.007	-3.803	-5.387	-6.760	-7.922	-8.873	-9.612	-10.140	-10.457	-10.563
10.35	2.44	0.000	-2.016	-3.821	-5.412	-6.792	-7.959	-8.915	-9.658	-10.188	-10.507	-10.613
10.36	2.43	0.000	-2.026	-3.839	-5.438	-6.824	-7.997	-8.957	-9.703	-10.236	-10.556	-10.663
10.38	2.42	0.000	-2.035	-3.857	-5.463	-6.856	-8.034	-8.999	-9.748	-10.284	-10.605	-10.713
10.39	2.41	0.000	-2.045	-3.875	-5.489	-6.888	-8.072	-9.041	-9.794	-10.332	-10.655	-10.763
10.40	2.40	0.000	-2.054	-3.892	-5.514	-6.920	-8.109	-9.082	-9.839	-10.380	-10.704	-10.812
10.41	2.39	0.000	-2.064	-3.910	-5.540	-6.952	-8.147	-9.124	-9.885	-10.428	-10.754	-10.862
10.42	2.38	0.000	-2.073	-3.928	-5.565	-6.984	-8.184	-9.166	-9.930	-10.476	-10.803	-10.912
10.43	2.37	0.000	-2.083	-3.946	-5.591	-7.016	-8.222	-9.208	-9.976	-10.524	-10.853	-10.962
10.44	2.36	0.000	-2.092	-3.964	-5.616	-7.048	-8.259	-9.250	-10.021	-10.572	-10.902	-11.012
10.45	2.35	0.000	-2.102	-3.982	-5.642	-7.080	-8.297	-9.292	-10.067	-10.620	-10.952	-11.062
10.46	2.34	0.000	-2.111	-4.000	-5.667	-7.112	-8.334	-9.334	-10.112	-10.668	-11.001	-11.112
10.47	2.33	0.000	-2.121	-4.018	-5.693	-7.144	-8.372	-9.376	-10.158	-10.716	-11.051	-11.162
10.48	2.32	0.000	-2.130	-4.036	-5.718	-7.176	-8.409	-9.418	-10.203	-10.764	-11.100	-11.212
10.49	2.31	0.000	-2.140	-4.054	-5.744	-7.208	-8.447	-9.460	-10.249	-10.812	-11.149	-11.262
10.50	2.30	0.000	-2.149	-4.072	-5.769	-7.240	-8.484	-9.502	-10.294	-10.860	-11.199	-11.312
10.51	2.29	0.000	-2.159	-4.090	-5.795	-7.272	-8.522	-9.544	-10.339	-10.908	-11.248	-11.362
10.52	2.28	0.000	-2.168	-4.108	-5.820	-7.304	-8.559	-9.586	-10.385	-10.956	-11.298	-11.412
10.53	2.27	0.000	-2.178	-4.126	-5.846	-7.336	-8.596	-9.628	-10.430	-11.003	-11.347	-11.462
10.54	2.26	0.000	-2.187	-4.144	-5.871	-7.368	-8.634	-9.670	-10.476	-11.051	-11.397	-11.512
10.55	2.25	0.000	-2.197	-4.162	-5.897	-7.400	-8.671	-9.712	-10.521	-11.099	-11.446	-11.562
10.56	2.24	0.000	-2.206	-4.180	-5.922	-7.432	-8.709	-9.754	-10.567	-11.147	-11.496	-11.612
10.57	2.23	0.000	-2.216	-4.198	-5.948	-7.464	-8.746	-9.796	-10.612	-11.195	-11.545	-11.662
10.58	2.22	0.000	-2.225	-4.216	-5.973	-7.496	-8.784	-9.838	-10.658	-11.243	-11.595	-11.712
10.59	2.21	0.000	-2.235	-4.234	-6.000	-7.527	-8.821	-9.880	-10.703	-11.291	-11.644	-11.762
10.60	2.20	0.000	-2.244	-4.252	-6.024	-7.559	-8.859	-9.922	-10.749	-11.339	-11.694	-11.812
10.62	2.19	0.000	-2.254	-4.270	-6.049	-7.591	-8.896	-9.964	-10.794	-11.387	-11.743	-11.862
10.63	2.18	0.000	-2.263	-4.288	-6.075	-7.623	-8.934	-10.006	-10.840	-11.435	-11.792	-11.912
10.64	2.17	0.000	-2.273	-4.306	-6.100	-7.655	-8.971	-10.048	-10.885	-11.483	-11.842	-11.962
10.65	2.16	0.000	-2.282	-4.324	-6.126	-7.687	-9.009	-10.090	-10.930	-11.531	-11.891	-12.012
10.66	2.15	0.000	-2.292	-4.342	-6.151	-7.719	-9.046	-10.132	-10.976	-11.579	-11.941	-12.062
10.67	2.14	0.000	-2.301	-4.360	-6.177	-7.751	-9.084	-10.174	-11.021	-11.627	-11.990	-12.112
10.68	2.13	0.000	-2.311	-4.378	-6.202	-7.783	-9.121	-10.216	-11.067	-11.675	-12.040	-12.162
10.69	2.12	0.000	-2.320	-4.396	-6.228	-7.815	-9.159	-10.258	-11.112	-11.723	-12.089	-12.212
10.70	2.11	0.000	-2.330	-4.414	-6.253	-7.847	-9.196	-10.299	-11.158	-11.771	-12.139	-12.262
10.71	2.10	0.000	-2.339	-4.432	-6.279	-7.879	-9.233	-10.341	-11.203	-11.819	-12.188	-12.312
10.72	2.09	0.000	-2.349	-4.450	-6.304	-7.911	-9.271	-10.383	-11.249	-11.867	-12.238	-12.362
10.73	2.08	0.000	-2.358	-4.468	-6.330	-7.943	-9.308	-10.425	-11.294	-11.915	-12.287	-12.412
10.74	2.07	0.000	-2.368	-4.486	-6.355	-7.975	-9.346	-10.467	-11.340	-11.963	-12.337	-12.462
10.75	2.06	0.000	-2.377	-4.504	-6.381	-8.007	-9.383	-10.509	-11.385	-12.011	-12.386	-12.512
10.76	2.05	0.000	-2.387	-4.522	-6.406	-8.039	-9.421	-10.551	-11.431	-12.059	-12.435	-12.562
10.77	2.04	0.000	-2.396	-4.540	-6.432	-8.071	-9.458	-10.593	-11.476	-12.107	-12.485	-12.612
10.78	2.03	0.000	-2.406	-4.558	-6.457	-8.103	-9.496	-10.635	-11.521	-12.155	-12.534	-12.662
10.79	2.02	0.000	-2.415	-4.576	-6.483	-8.135	-9.533	-10.677	-11.567	-12.203	-12.584	-12.712
10.80	2.01	0.000	-2.425	-4.594	-6.508	-8.167	-9.571	-10.719	-11.612	-12.250	-12.633	-12.762
10.81	2.00	0.000	-2.434	-4.612	-6.534	-8.199	-9.608	-10.761	-11.658	-12.298	-12.683	-12.812
10.82	1.99	0.000	-2.444	-4.630	-6.559	-8.231	-9.646	-10.803	-11.703	-12.346	-12.732	-12.862
10.83	1.98	0.000	-2.453	-4.648	-6.584	-8.263	-9.683	-10.845	-11.749	-12.394	-12.782	-12.912
10.84	1.97	0.000	-2.463	-4.666	-6.610	-8.295	-9.721	-10.887	-11.794	-12.442	-12.831	-12.962
10.85	1.96	0.000	-2.472	-4.684	-6.635	-8.327	-9.758	-10.929	-11.840	-12.490	-12.881	-13.012
10.86	1.95	0.000	-2.482	-4.702	-6.661	-8.359	-9.795	-10.971	-11.885	-12.538	-12.930	-13.062
10.87	1.94	0.000	-2.491	-4.720	-6.686	-8.391	-9.833	-11.013	-11.931	-12.586	-12.980	-13.112
10.88	1.93	0.000	-2.501	-4.738	-6.712	-8.423	-9.870	-11.055	-11.976	-12.634	-13.029	-13.162
10.89	1.92	0.000	-2.510	-4.756	-6.737	-8.455	-9.908	-11.097	-12.022	-12.682	-13.078	-13.212
10.90	1.91	0.000	-2.519	-4.774	-6.763	-8.487	-9.945	-11.139	-12.067	-12.730	-13.128	-13.262
10.91	1.90	0.000	-2.529	-4.792	-6.788	-8.519	-9.983	-11.181	-12.113	-12.778	-13.177	-13.312
10.92	1.89	0.000	-2.									

11.01	1.79	0.000	-2.633	-4.990	-7.069	-8.870	-10.395	-11.642	-12.613	-13.306	-13.721	-13.860
11.02	1.78	0.000	-2.643	-5.008	-7.094	-8.902	-10.432	-11.684	-12.658	-13.354	-13.771	-13.910
11.03	1.77	0.000	-2.652	-5.026	-7.120	-8.934	-10.470	-11.726	-12.704	-13.402	-13.820	-13.960
11.04	1.76	0.000	-2.662	-5.044	-7.145	-8.966	-10.507	-11.768	-12.749	-13.449	-13.870	-14.010
11.05	1.75	0.000	-2.671	-5.062	-7.171	-8.998	-10.545	-11.810	-12.794	-13.497	-13.919	-14.050
11.06	1.74	0.000	-2.681	-5.080	-7.196	-9.030	-10.582	-11.852	-12.840	-13.545	-13.969	-14.110
11.07	1.73	0.000	-2.690	-5.098	-7.221	-9.062	-10.620	-11.894	-12.885	-13.593	-14.018	-14.160
11.08	1.72	0.000	-2.700	-5.116	-7.247	-9.094	-10.657	-11.936	-12.931	-13.641	-14.068	-14.210
11.09	1.71	0.000	-2.709	-5.133	-7.272	-9.126	-10.695	-11.978	-12.976	-13.689	-14.117	-14.260
11.10	1.70	0.000	-2.719	-5.151	-7.298	-9.158	-10.732	-12.020	-13.022	-13.737	-14.167	-14.310
11.11	1.69	0.000	-2.728	-5.169	-7.323	-9.190	-10.770	-12.062	-13.067	-13.785	-14.216	-14.360
11.12	1.68	0.000	-2.738	-5.187	-7.349	-9.222	-10.807	-12.104	-13.113	-13.833	-14.265	-14.410
11.13	1.67	0.000	-2.747	-5.205	-7.374	-9.254	-10.845	-12.146	-13.158	-13.881	-14.315	-14.460
11.14	1.66	0.000	-2.757	-5.223	-7.400	-9.286	-10.882	-12.188	-13.204	-13.929	-14.364	-14.509
11.15	1.65	0.000	-2.766	-5.241	-7.425	-9.318	-10.920	-12.230	-13.249	-13.977	-14.414	-14.559
11.16	1.64	0.000	-2.776	-5.259	-7.451	-9.350	-10.957	-12.272	-13.295	-14.026	-14.463	-14.609
11.17	1.63	0.000	-2.785	-5.277	-7.476	-9.382	-10.995	-12.314	-13.340	-14.073	-14.513	-14.659
11.18	1.62	0.000	-2.795	-5.295	-7.502	-9.414	-11.032	-12.356	-13.385	-14.121	-14.562	-14.709
11.19	1.61	0.000	-2.804	-5.313	-7.527	-9.446	-11.069	-12.398	-13.431	-14.169	-14.612	-14.759
11.19	1.60	0.000	-2.814	-5.331	-7.553	-9.478	-11.107	-12.440	-13.476	-14.217	-14.661	-14.809
11.20	1.59	0.000	-2.823	-5.349	-7.578	-9.510	-11.144	-12.482	-13.522	-14.265	-14.711	-14.859
11.21	1.58	0.000	-2.833	-5.367	-7.604	-9.542	-11.182	-12.524	-13.567	-14.313	-14.760	-14.909
11.22	1.57	0.000	-2.842	-5.385	-7.629	-9.574	-11.219	-12.566	-13.613	-14.361	-14.810	-14.959
11.23	1.56	0.000	-2.852	-5.403	-7.655	-9.606	-11.257	-12.608	-13.658	-14.409	-14.859	-15.009
11.24	1.55	0.000	-2.861	-5.421	-7.680	-9.638	-11.294	-12.650	-13.704	-14.457	-14.908	-15.059
11.25	1.54	0.000	-2.871	-5.439	-7.706	-9.670	-11.332	-12.692	-13.749	-14.505	-14.958	-15.109
11.26	1.53	0.000	-2.880	-5.457	-7.731	-9.702	-11.369	-12.734	-13.795	-14.553	-15.007	-15.159
11.27	1.52	0.000	-2.890	-5.475	-7.757	-9.734	-11.407	-12.775	-13.840	-14.601	-15.057	-15.209
11.28	1.51	0.000	-2.899	-5.493	-7.782	-9.766	-11.444	-12.817	-13.886	-14.649	-15.106	-15.259
11.29	1.50	0.000	-2.909	-5.511	-7.808	-9.798	-11.482	-12.859	-13.931	-14.696	-15.156	-15.309
11.30	1.49	0.000	-2.918	-5.529	-7.833	-9.830	-11.519	-12.901	-13.977	-14.744	-15.205	-15.359
11.31	1.48	0.000	-2.928	-5.547	-7.858	-9.862	-11.557	-12.943	-14.022	-14.792	-15.255	-15.409
11.32	1.47	0.000	-2.937	-5.565	-7.884	-9.894	-11.594	-12.985	-14.067	-14.840	-15.304	-15.459
11.33	1.46	0.000	-2.947	-5.583	-7.909	-9.926	-11.632	-13.027	-14.113	-14.888	-15.354	-15.509
11.33	1.45	0.000	-2.956	-5.601	-7.935	-9.958	-11.669	-13.069	-14.158	-14.936	-15.403	-15.559
11.34	1.44	0.000	-2.966	-5.619	-7.960	-9.990	-11.706	-13.111	-14.204	-14.984	-15.453	-15.609
11.35	1.43	0.000	-2.975	-5.637	-7.986	-10.021	-11.744	-13.153	-14.249	-15.032	-15.502	-15.659
11.36	1.42	0.000	-2.985	-5.655	-8.011	-10.053	-11.781	-13.195	-14.295	-15.080	-15.551	-15.709
11.37	1.41	0.000	-2.994	-5.673	-8.037	-10.085	-11.819	-13.237	-14.340	-15.128	-15.601	-15.758
11.38	1.40	0.000	-3.004	-5.691	-8.062	-10.117	-11.856	-13.279	-14.386	-15.176	-15.650	-15.808
11.39	1.39	0.000	-3.013	-5.709	-8.088	-10.149	-11.894	-13.321	-14.431	-15.224	-15.700	-15.858
11.40	1.38	0.000	-3.023	-5.727	-8.113	-10.181	-11.931	-13.363	-14.477	-15.272	-15.749	-15.908
11.41	1.37	0.000	-3.032	-5.745	-8.139	-10.213	-11.969	-13.405	-14.522	-15.320	-15.799	-15.958
11.42	1.36	0.000	-3.042	-5.763	-8.164	-10.245	-12.006	-13.447	-14.568	-15.368	-15.848	-16.008
11.43	1.35	0.000	-3.051	-5.781	-8.190	-10.277	-12.044	-13.489	-14.613	-15.416	-15.898	-16.058
11.44	1.34	0.000	-3.061	-5.799	-8.215	-10.309	-12.081	-13.531	-14.658	-15.464	-15.947	-16.108
11.44	1.33	0.000	-3.070	-5.817	-8.241	-10.341	-12.119	-13.573	-14.704	-15.512	-15.997	-16.158
11.45	1.32	0.000	-3.080	-5.835	-8.266	-10.373	-12.156	-13.615	-14.749	-15.560	-16.046	-16.208
11.46	1.31	0.000	-3.089	-5.853	-8.292	-10.405	-12.194	-13.657	-14.795	-15.608	-16.095	-16.258
11.47	1.30	0.000	-3.099	-5.871	-8.317	-10.437	-12.231	-13.699	-14.840	-15.656	-16.145	-16.308
11.48	1.29	0.000	-3.108	-5.889	-8.343	-10.469	-12.268	-13.741	-14.886	-15.704	-16.194	-16.358
11.49	1.28	0.000	-3.118	-5.907	-8.368	-10.501	-12.306	-13.783	-14.931	-15.752	-16.244	-16.408
11.50	1.27	0.000	-3.127	-5.925	-8.394	-10.533	-12.343	-13.825	-14.977	-15.800	-16.293	-16.458
11.51	1.26	0.000	-3.136	-5.943	-8.419	-10.565	-12.381	-13.867	-15.022	-15.848	-16.343	-16.508
11.52	1.25	0.000	-3.146	-5.961	-8.444	-10.597	-12.418	-13.909	-15.068	-15.896	-16.392	-16.558
11.53	1.24	0.000	-3.155	-5.979	-8.470	-10.629	-12.456	-13.951	-15.113	-15.943	-16.442	-16.608
11.53	1.23	0.000	-3.165	-5.997	-8.495	-10.661	-12.493	-13.993	-15.159	-15.991	-16.491	-16.658
11.54	1.22	0.000	-3.174	-6.015	-8.521	-10.693	-12.531	-14.034	-15.204	-16.039	-16.541	-16.708
11.55	1.21	0.000	-3.184	-6.033	-8.546	-10.725	-12.568	-14.076	-15.249	-16.087	-16.590	-16.758
11.56	1.20	0.000	-3.193	-6.051	-8.572	-10.757	-12.606	-14.118	-15.295	-16.135	-16.640	-16.808
11.57	1.19	0.000	-3.203	-6.069	-8.597	-10.789	-12.643	-14.160	-15.340	-16.183	-16.689	-16.858
11.58	1.18	0.000	-3.212	-6.087	-8.623	-10.821	-12.681	-14.202	-15.386	-16.231	-16.738	-16.908
11.59	1.17	0.000	-3.222	-6.105	-8.648	-10.853	-12.718	-14.244	-15.431	-16.279	-16.788	-16.957
11.60	1.16	0.000	-3.231	-6.123	-8.674	-10.885	-12.756	-14.286	-15.477	-16.327	-16.837	-17.007
11.61	1.15	0.000	-3.241	-6.141	-8.699	-10.917	-12.793	-14.328	-15.522	-16.375	-16.887	-17.057
11.61	1.14	0.000	-3.250	-6.159	-8.725	-10.949	-12.831	-14.370	-15.568	-16.423	-16.936	-17.107
11.62	1.13	0.000	-3.260	-6.177	-8.750	-10.981	-12.868	-14.412	-15.613	-16.471	-16.986	-17.157
11.63	1.12	0.000	-3.269	-6.195	-8.776	-11.013	-12.905	-14.454	-15.659	-16.519	-17.035	-17.207
11.64	1.11	0.000	-3.279	-6.213	-8.801	-11.045	-12.943	-14.496	-15.704	-16.567	-17.085	-17.257
11.65	1.10	0.000	-3.288	-6.231	-8.827	-11.077	-12.980	-14.538	-15.750	-16.615	-17.134	-17.307
11.66	1.09	0.000	-3.298	-6.249	-8.852	-11.109	-13.016	-14.580	-15.795	-16.663	-17.184	-17.357
11.67	1.08	0.000	-3.307	-6.267	-8.878	-11.141	-13.055	-14.622	-15.840	-16.711	-17.233	-17.407
11.68	1.07	0.000	-3.317	-6.285	-8.903	-11.173	-13.093	-14.664	-15.886	-16.759	-17.283	-17.457
11.68	1.06	0.000	-3.326	-6.303	-8.929	-11.205	-13.130	-14.706	-15.931	-16.807	-17.332	-17.507
11.69	1.05	0.000	-3.336	-6.321	-8.954	-11.236	-13.168	-14.748	-15.977	-16.855	-17.381	-17.557
11.70	1.04	0.000	-3.345	-6.339	-8.980	-11.268	-13.205	-14.790	-16.022	-16.903	-17.431	-17.607
11.71	1.03	0.000	-3.355	-6.356	-9.005	-11.300	-13.243	-14.832	-16.068	-16.951	-17.480	-17.657
11.72	1.02	0.000	-3.364	-6.374	-9.031	-11.332	-13.280	-14.874	-16.113	-16.999	-17.530	-17.707
11.73	1.01	0.000	-3.374	-6.392	-9.056	-11.364	-13.318	-14.916	-16.159	-17.047	-17.579	-17.757
11.74	1.00	0.000	-3.383	-6.410	-9.081	-11.396	-13.355	-14.958	-16.204	-17.095	-17.629	-17.807
11.75	0.99	0.000	-3.393	-6.428	-9.107	-11.428	-13.393	-15.000	-16.250	-17.142	-17.678	-17.857
11.75	0.98	0.000	-3.402	-6.446	-9.132	-11.460	-13.430	-15.042	-16.295	-17.190	-17.728	-17.907
11.76	0.97	0.000	-3.412	-6.464	-9.158	-11.492	-13.468	-15.084	-16.341	-17.238	-17.777	-17.957
11.77	0.96	0.000	-3.421	-6.482	-9.183	-11.524	-13.505	-15.126	-16.386	-17.286	-17.827	-18.007
11.78	0.95	0.000	-3.431	-6.500	-9.209	-11.556	-13.542	-15.168	-16.432	-17.334	-17.876	-18.057
11.79	0.94	0.000	-3.440	-6.518	-9.234	-11.588	-13.580	-15.210	-16.477	-17.382	-17.925	-18.107
11.80	0.93	0.000	-3.450	-6.536	-9.260	-11.620	-13.617	-15.251	-16.522	-17.430	-17.975	-18.157

11.91	0.80	0.000	-3.573	-6.770	-9.591	-12.036	-14.104	-15.797	-17.113	-18.054	-18.618	-18.806
11.92	0.79	0.000	-3.583	-6.788	-9.617	-12.068	-14.142	-15.839	-17.159	-18.102	-18.667	-18.856
11.92	0.78	0.000	-3.592	-6.806	-9.642	-12.100	-14.179	-15.881	-17.204	-18.150	-18.717	-18.906
11.93	0.77	0.000	-3.602	-6.824	-9.667	-12.132	-14.217	-15.923	-17.250	-18.198	-18.766	-18.956
11.94	0.76	0.000	-3.611	-6.842	-9.693	-12.164	-14.254	-15.965	-17.295	-18.246	-18.816	-19.006
11.95	0.75	0.000	-3.621	-6.860	-9.718	-12.196	-14.292	-16.007	-17.341	-18.294	-18.865	-19.056
11.96	0.74	0.000	-3.630	-6.878	-9.744	-12.228	-14.329	-16.049	-17.386	-18.342	-18.915	-19.106
11.97	0.73	0.000	-3.640	-6.896	-9.769	-12.260	-14.367	-16.091	-17.432	-18.389	-18.964	-19.156
11.97	0.72	0.000	-3.649	-6.914	-9.795	-12.292	-14.404	-16.133	-17.477	-18.437	-19.014	-19.206
11.98	0.71	0.000	-3.659	-6.932	-9.820	-12.324	-14.442	-16.175	-17.523	-18.485	-19.063	-19.256
11.99	0.70	0.000	-3.668	-6.950	-9.846	-12.356	-14.479	-16.217	-17.568	-18.533	-19.113	-19.306
12.00	0.69	0.000	-3.678	-6.968	-9.871	-12.388	-14.517	-16.259	-17.614	-18.581	-19.162	-19.356
12.01	0.68	0.000	-3.687	-6.986	-9.897	-12.420	-14.554	-16.301	-17.659	-18.629	-19.211	-19.406
12.02	0.67	0.000	-3.697	-7.004	-9.922	-12.452	-14.592	-16.343	-17.704	-18.677	-19.261	-19.455
12.02	0.66	0.000	-3.706	-7.022	-9.948	-12.483	-14.629	-16.385	-17.750	-18.725	-19.310	-19.505
12.03	0.65	0.000	-3.716	-7.040	-9.973	-12.515	-14.667	-16.427	-17.795	-18.773	-19.360	-19.555
12.04	0.64	0.000	-3.725	-7.058	-9.999	-12.547	-14.704	-16.468	-17.841	-18.821	-19.409	-19.605
12.05	0.63	0.000	-3.735	-7.076	-10.024	-12.579	-14.741	-16.510	-17.886	-18.869	-19.459	-19.655
12.06	0.62	0.000	-3.744	-7.094	-10.050	-12.611	-14.779	-16.552	-17.932	-18.917	-19.508	-19.705
12.07	0.61	0.000	-3.753	-7.112	-10.075	-12.643	-14.816	-16.594	-17.977	-18.965	-19.558	-19.755
12.07	0.60	0.000	-3.763	-7.130	-10.101	-12.675	-14.854	-16.636	-18.023	-19.013	-19.607	-19.805
12.08	0.59	0.000	-3.772	-7.148	-10.126	-12.707	-14.891	-16.678	-18.068	-19.061	-19.657	-19.855
12.09	0.58	0.000	-3.782	-7.166	-10.152	-12.739	-14.929	-16.720	-18.114	-19.109	-19.706	-19.905
12.10	0.57	0.000	-3.791	-7.184	-10.177	-12.771	-14.966	-16.762	-18.159	-19.157	-19.756	-19.955
12.11	0.56	0.000	-3.801	-7.202	-10.203	-12.803	-15.004	-16.804	-18.205	-19.205	-19.805	-20.005
12.12	0.55	0.000	-3.810	-7.220	-10.228	-12.835	-15.041	-16.846	-18.250	-19.253	-19.854	-20.055
12.12	0.54	0.000	-3.820	-7.238	-10.254	-12.867	-15.079	-16.888	-18.296	-19.301	-19.904	-20.105
12.13	0.53	0.000	-3.829	-7.256	-10.279	-12.899	-15.116	-16.930	-18.341	-19.349	-19.953	-20.155
12.14	0.52	0.000	-3.839	-7.274	-10.304	-12.931	-15.154	-16.972	-18.386	-19.397	-20.003	-20.205
12.15	0.51	0.000	-3.848	-7.292	-10.330	-12.963	-15.191	-17.014	-18.432	-19.445	-20.052	-20.255
12.16	0.50	0.000	-3.858	-7.310	-10.355	-13.002	-15.229	-17.056	-18.477	-19.493	-20.102	-20.305
12.16	0.49	0.000	-3.867	-7.328	-10.381	-13.027	-15.266	-17.098	-18.523	-19.541	-20.151	-20.355
12.17	0.48	0.000	-3.877	-7.346	-10.406	-13.059	-15.304	-17.140	-18.568	-19.589	-20.201	-20.405
12.18	0.47	0.000	-3.886	-7.364	-10.432	-13.091	-15.341	-17.182	-18.614	-19.636	-20.250	-20.455
12.19	0.46	0.000	-3.896	-7.382	-10.457	-13.123	-15.378	-17.224	-18.659	-19.684	-20.300	-20.505
12.20	0.45	0.000	-3.905	-7.400	-10.483	-13.155	-15.416	-17.266	-18.705	-19.732	-20.349	-20.555
12.20	0.44	0.000	-3.915	-7.418	-10.508	-13.187	-15.453	-17.308	-18.750	-19.780	-20.398	-20.605
12.21	0.43	0.000	-3.924	-7.436	-10.534	-13.219	-15.491	-17.350	-18.796	-19.828	-20.448	-20.654
12.22	0.42	0.000	-3.934	-7.454	-10.559	-13.251	-15.528	-17.392	-18.841	-19.876	-20.497	-20.704
12.23	0.41	0.000	-3.943	-7.472	-10.585	-13.283	-15.566	-17.434	-18.887	-19.924	-20.547	-20.754
12.24	0.40	0.000	-3.953	-7.490	-10.610	-13.315	-15.603	-17.476	-18.932	-19.972	-20.596	-20.804
12.24	0.39	0.000	-3.962	-7.508	-10.636	-13.347	-15.641	-17.518	-18.977	-20.020	-20.646	-20.854
12.25	0.38	0.000	-3.972	-7.526	-10.661	-13.379	-15.678	-17.560	-19.023	-20.068	-20.695	-20.904
12.26	0.37	0.000	-3.981	-7.544	-10.687	-13.411	-15.716	-17.602	-19.068	-20.116	-20.745	-20.954
12.27	0.36	0.000	-3.991	-7.562	-10.712	-13.443	-15.753	-17.644	-19.114	-20.164	-20.794	-21.004
12.28	0.35	0.000	-4.000	-7.580	-10.738	-13.475	-15.791	-17.686	-19.159	-20.212	-20.844	-21.054
12.28	0.34	0.000	-4.010	-7.597	-10.763	-13.507	-15.828	-17.727	-19.205	-20.260	-20.893	-21.104
12.29	0.33	0.000	-4.019	-7.615	-10.789	-13.539	-15.866	-17.769	-19.250	-20.308	-20.943	-21.154
12.30	0.32	0.000	-4.029	-7.633	-10.814	-13.571	-15.903	-17.811	-19.296	-20.356	-20.992	-21.204
12.31	0.31	0.000	-4.038	-7.651	-10.840	-13.603	-15.941	-17.853	-19.341	-20.404	-21.041	-21.254
12.32	0.30	0.000	-4.048	-7.669	-10.865	-13.635	-15.978	-17.895	-19.387	-20.452	-21.091	-21.304
12.32	0.29	0.000	-4.057	-7.687	-10.891	-13.667	-16.015	-17.937	-19.432	-20.500	-21.140	-21.354
12.33	0.28	0.000	-4.067	-7.705	-10.916	-13.698	-16.053	-17.979	-19.478	-20.548	-21.190	-21.404
12.34	0.27	0.000	-4.076	-7.723	-10.941	-13.730	-16.090	-18.021	-19.523	-20.596	-21.239	-21.454
12.35	0.26	0.000	-4.086	-7.741	-10.967	-13.762	-16.128	-18.063	-19.568	-20.644	-21.289	-21.504
12.35	0.25	0.000	-4.095	-7.759	-10.992	-13.794	-16.165	-18.105	-19.614	-20.692	-21.338	-21.554
12.36	0.24	0.000	-4.105	-7.777	-11.018	-13.826	-16.203	-18.147	-19.659	-20.740	-21.388	-21.604
12.37	0.23	0.000	-4.114	-7.795	-11.043	-13.858	-16.240	-18.189	-19.705	-20.788	-21.437	-21.654
12.38	0.22	0.000	-4.124	-7.813	-11.069	-13.890	-16.278	-18.231	-19.750	-20.836	-21.487	-21.704
12.39	0.21	0.000	-4.133	-7.831	-11.094	-13.922	-16.315	-18.273	-19.796	-20.883	-21.536	-21.754
12.39	0.20	0.000	-4.143	-7.849	-11.120	-13.954	-16.353	-18.315	-19.841	-20.931	-21.586	-21.804
12.40	0.19	0.000	-4.152	-7.867	-11.145	-13.986	-16.390	-18.357	-19.887	-20.979	-21.635	-21.854
12.41	0.18	0.000	-4.162	-7.885	-11.171	-14.018	-16.428	-18.399	-19.932	-21.027	-21.684	-21.903
12.42	0.17	0.000	-4.171	-7.903	-11.196	-14.050	-16.465	-18.441	-19.978	-21.075	-21.734	-21.953
12.42	0.16	0.000	-4.181	-7.921	-11.222	-14.082	-16.503	-18.483	-20.023	-21.123	-21.783	-22.003
12.43	0.15	0.000	-4.190	-7.939	-11.247	-14.114	-16.540	-18.525	-20.069	-21.171	-21.833	-22.053
12.44	0.14	0.000	-4.200	-7.957	-11.273	-14.146	-16.577	-18.567	-20.114	-21.219	-21.882	-22.103
12.45	0.13	0.000	-4.209	-7.975	-11.298	-14.178	-16.615	-18.609	-20.159	-21.267	-21.932	-22.153
12.46	0.12	0.000	-4.219	-7.993	-11.324	-14.210	-16.652	-18.651	-20.205	-21.315	-21.981	-22.203
12.46	0.11	0.000	-4.228	-8.011	-11.349	-14.242	-16.690	-18.693	-20.250	-21.363	-22.031	-22.253
12.47	0.10	0.000	-4.238	-8.029	-11.375	-14.274	-16.727	-18.735	-20.296	-21.411	-22.080	-22.303
12.48	0.09	0.000	-4.247	-8.047	-11.400	-14.306	-16.765	-18.777	-20.341	-21.459	-22.130	-22.353
12.49	0.08	0.000	-4.257	-8.065	-11.426	-14.338	-16.802	-18.819	-20.387	-21.507	-22.179	-22.403
12.49	0.07	0.000	-4.266	-8.083	-11.451	-14.370	-16.840	-18.861	-20.432	-21.555	-22.229	-22.453
12.50	0.06	0.000	-4.276	-8.101	-11.477	-14.402	-16.877	-18.903	-20.478	-21.603	-22.278	-22.503
12.51	0.05	0.000	-4.285	-8.119	-11.502	-14.434	-16.915	-18.944	-20.523	-21.651	-22.327	-22.553
12.52	0.04	0.000	-4.295	-8.137	-11.527	-14.466	-16.952	-18.986	-20.569	-21.699	-22.377	-22.603
12.52	0.03	0.000	-4.304	-8.155	-11.553	-14.498	-16.990	-19.028	-20.614	-21.747	-22.426	-22.653
12.53	0.02	0.000	-4.314	-8.173	-11.578	-14.530	-17.027	-19.070	-20.660	-21.795	-22.476	-22.703
12.54	0.01	0.000	-4.323	-8.191	-11.604	-14.562	-17.065	-19.112	-20.705	-21.843	-22.525	-22.753
12.55	0.00	0.000	-4.333	-8.209	-11.629	-14.594	-17.102	-19.154	-20.751	-21.891	-22.575	-22.803

Paso 3:

B.- Determinación de los esfuerzos cortantes, producidos por las fuerzas de corte:

En el paso 1, conocimos las siguientes propiedades geométricas de la estructura:

- Coordenadas del lugar geométrico
- Area transversal
- Posición del eje neutro
- Momento estático
- Momento de inercia

En el paso 2, se determinaron por el método de la viga :

- El diagrama de fuerzas cortantes
- El diagrama de momentos flexores

El paso 3 A; nos sirvió para conocer la magnitud y posición de los esfuerzos normales que produce la flexión en cualquier sección transversal.

El paso 3 B; nos servirá para determinar la magnitud y posición de los esfuerzos cortantes que producen las fuerzas de corte en cualquier sección transversal.

En la tabla 5, se calcularon los esfuerzos cortantes que producen las fuerzas cortantes, valor que dependerá directamente de:

a.- La posición con respecto a la sección, ya que las fibras más cercanas al eje neutro, estarán mas esforzadas.

b.- Y de su posición a lo largo de la estructura, debido a que la magnitud de las fuerzas cortantes disminuyen mientras más se alejen de los apoyos de la viga, hasta llegar a cero en el centro del claro.

El procedimiento para determinar la magnitud y posición de los esfuerzos cortantes, consiste en aplicar en la formula del cortante (fórmula 2); los valores de la fuerza cortante en la sección(V_i), del momento de inercia de la sección (I_{xx}), del espesor o pared de la cascara que se

recomienda sea constante (e) y del valor del primer momento diferencial acumulado (S) en la fibra en donde se quiera conocer el esfuerzo.

$$\tau = V_i * S / (I_{xx} * e) \quad \text{fórmula 2}$$

V_i : es valor de la ordenada del diagrama de fuerzas cortantes, en la sección deseada, su unidad debe ser kg.

S : corresponde al primer momento acumulado en la fibra en donde se calcula el esfuerzo. su unidad será cm^3 .

I_{xx} : es el momento de inercia con respecto al eje neutro, en el mismo sentido del sistema de cargas, su valor es constante en cilindros y superficies prismáticas y su unidad debe ser cm^4

e : es el espesor de la cascara, se recomienda en el primer tanteo proponerlo, y obtener las propiedades geométricas, y los esfuerzos, si el resultado es satisfactorio, se deja ese espesor, si no, habrá que cambiarlo, modificando su valor en la hoja de calculo tantas veces como necesitemos, la propuesta para éste caso son 5 cm de espesor constante.

Generalmente la magnitud de los esfuerzos calculados en cualquier sección varían, siendo mayores en el eje neutro, y tendiendo hasta ser cero, en la cúspide y en la base.

En las columnas, de la 17 hasta la 27 de la tabla 5, se calcularon los esfuerzos de once secciones transversales, separadas a cada metro, desde la sección $Z=0.00$ que corresponde al apoyo hasta la sección $Z=10.00$ que corresponde al centro del claro (por simetría conoceremos la otra parte media del cilindro).

La ordenada Y , se varió verticalmente a cada centímetro y solo en una rama de la sección, ya que por simetría conoceremos los esfuerzos de la otra rama.

Con la determinación de los esfuerzos cortantes que producen las fuerzas cortantes, estamos en condiciones de diseñar el espesor de la cascara y la posición y dosificación del refuerzo diagonal, si el concreto de la sección no fuera capaz de absorber dichos esfuerzos cortantes. Pero no lo haré porque el propósito es solo determinar la magnitud y posición de los esfuerzos.

TABLA 5

ESFUERZOS CORTANTES DEBIDOS A LA FLEXION:

ORDENADAS		COLUMNA 17	COLUMNA 18	COLUMNA 19	COLUMNA 20	COLUMNA 21	COLUMNA 22	COLUMNA 23	COLUMNA 24	COLUMNA 25	COLUMNA 26	COLUMNA 27
X	Y	SECCIÓN Z=0 FUERZA CORTANTE 73913.561 kg (V*S)/(B*I)	SECCIÓN Z=1 FUERZA CORTANTE 66522.205 kg (V*S)/(B*I)	SECCIÓN Z=2 FUERZA CORTANTE 59130.849 kg (V*S)/(B*I)	SECCIÓN Z=3 FUERZA CORTANTE 51739.493 kg (V*S)/(B*I)	SECCIÓN Z=4 FUERZA CORTANTE 44348.137 kg (V*S)/(B*I)	SECCIÓN Z=5 FUERZA CORTANTE 36956.780 kg (V*S)/(B*I)	SECCIÓN Z=6 FUERZA CORTANTE 29565.424 kg (V*S)/(B*I)	SECCIÓN Z=7 FUERZA CORTANTE 22174.068 kg (V*S)/(B*I)	SECCIÓN Z=8 FUERZA CORTANTE 14782.712 kg (V*S)/(B*I)	SECCIÓN Z=9 FUERZA CORTANTE 7391.356 kg (V*S)/(B*I)	SECCIÓN Z=10 FUERZA CORTANTE 0.000 kg (V*S)/(B*I)
		ESFUERZO CORTANTE kg/m ²	ESFUERZO CORTANTE kg/m ²	ESFUERZO CORTANTE kg/m ²	ESFUERZO CORTANTE kg/m ²	ESFUERZO CORTANTE kg/m ²	ESFUERZO CORTANTE kg/m ²	ESFUERZO CORTANTE kg/m ²	ESFUERZO CORTANTE kg/m ²	ESFUERZO CORTANTE kg/m ²	ESFUERZO CORTANTE kg/m ²	ESFUERZO CORTANTE kg/m ²
0.00	7.50	0.190	0.171	0.152	0.133	0.114	0.095	0.076	0.057	0.038	0.019	0.000
0.05	7.49	0.375	0.337	0.300	0.262	0.225	0.187	0.150	0.112	0.075	0.037	0.000
0.11	7.48	0.555	0.500	0.444	0.389	0.333	0.278	0.222	0.167	0.111	0.056	0.000
0.17	7.47	0.732	0.659	0.586	0.512	0.439	0.366	0.293	0.220	0.146	0.073	0.000
0.23	7.46	0.905	0.814	0.724	0.633	0.543	0.452	0.362	0.271	0.181	0.090	0.000
0.29	7.45	1.074	0.967	0.859	0.752	0.645	0.537	0.430	0.322	0.215	0.107	0.000
0.35	7.44	1.240	1.116	0.992	0.868	0.744	0.620	0.496	0.372	0.248	0.124	0.000
0.41	7.43	1.403	1.262	1.122	0.982	0.842	0.701	0.561	0.421	0.281	0.140	0.000
0.46	7.42	1.562	1.406	1.250	1.093	0.937	0.781	0.625	0.469	0.312	0.156	0.000
0.52	7.41	1.718	1.547	1.375	1.203	1.031	0.859	0.687	0.516	0.344	0.172	0.000
0.57	7.40	1.872	1.685	1.498	1.310	1.123	0.936	0.749	0.562	0.374	0.187	0.000
0.63	7.39	2.023	1.820	1.618	1.416	1.214	1.011	0.809	0.607	0.405	0.202	0.000
0.68	7.38	2.171	1.954	1.737	1.520	1.302	1.085	0.868	0.651	0.434	0.217	0.000
0.73	7.37	2.316	2.085	1.853	1.621	1.390	1.158	0.927	0.695	0.463	0.232	0.000
0.78	7.36	2.459	2.214	1.968	1.722	1.476	1.230	0.984	0.738	0.492	0.246	0.000
0.83	7.35	2.600	2.340	2.080	1.820	1.560	1.300	1.040	0.780	0.520	0.260	0.000
0.88	7.34	2.739	2.465	2.191	1.917	1.643	1.369	1.096	0.822	0.548	0.274	0.000
0.93	7.33	2.875	2.588	2.300	2.013	1.725	1.438	1.150	0.863	0.575	0.288	0.000
0.98	7.32	3.009	2.708	2.407	2.106	1.806	1.505	1.204	0.903	0.602	0.301	0.000
1.03	7.31	3.141	2.827	2.513	2.199	1.885	1.571	1.257	0.942	0.628	0.314	0.000
1.07	7.30	3.272	2.944	2.617	2.290	1.963	1.636	1.309	0.981	0.654	0.327	0.000
1.12	7.29	3.400	3.060	2.720	2.380	2.040	1.700	1.360	1.020	0.680	0.340	0.000
1.17	7.28	3.526	3.173	2.821	2.468	2.116	1.763	1.410	1.058	0.705	0.353	0.000
1.21	7.27	3.651	3.288	2.921	2.555	2.190	1.825	1.460	1.095	0.730	0.365	0.000
1.26	7.26	3.773	3.396	3.019	2.641	2.264	1.887	1.509	1.132	0.755	0.377	0.000
1.30	7.25	3.895	3.505	3.116	2.726	2.337	1.947	1.558	1.168	0.779	0.389	0.000
1.34	7.24	4.014	3.613	3.211	2.810	2.408	2.007	1.606	1.204	0.803	0.401	0.000
1.39	7.23	4.132	3.719	3.305	2.892	2.479	2.066	1.653	1.240	0.826	0.413	0.000
1.43	7.22	4.248	3.823	3.398	2.974	2.549	2.124	1.699	1.274	0.850	0.425	0.000
1.47	7.21	4.363	3.926	3.490	3.054	2.618	2.181	1.745	1.309	0.873	0.436	0.000
1.52	7.20	4.476	4.028	3.581	3.133	2.686	2.238	1.790	1.343	0.895	0.448	0.000
1.56	7.19	4.588	4.129	3.670	3.211	2.753	2.294	1.835	1.376	0.918	0.459	0.000
1.60	7.18	4.698	4.228	3.758	3.289	2.819	2.349	1.879	1.409	0.940	0.470	0.000
1.64	7.17	4.807	4.326	3.846	3.365	2.884	2.403	1.923	1.442	0.961	0.481	0.000
1.68	7.16	4.915	4.423	3.932	3.440	2.949	2.457	1.966	1.474	0.983	0.491	0.000
1.72	7.15	5.021	4.519	4.017	3.515	3.012	2.510	2.008	1.506	1.004	0.502	0.000
1.76	7.14	5.126	4.613	4.101	3.588	3.075	2.563	2.050	1.538	1.025	0.513	0.000
1.80	7.13	5.230	4.707	4.184	3.661	3.138	2.615	2.092	1.569	1.046	0.523	0.000
1.84	7.12	5.332	4.799	4.266	3.732	3.199	2.666	2.133	1.600	1.066	0.533	0.000
1.88	7.11	5.433	4.890	4.347	3.803	3.260	2.717	2.173	1.630	1.087	0.543	0.000
1.92	7.10	5.533	4.980	4.427	3.873	3.320	2.767	2.213	1.660	1.107	0.553	0.000
1.95	7.09	5.632	5.069	4.506	3.943	3.379	2.816	2.253	1.690	1.126	0.563	0.000
1.99	7.08	5.730	5.157	4.584	4.011	3.438	2.865	2.292	1.719	1.146	0.573	0.000
2.03	7.07	5.827	5.244	4.661	4.079	3.496	2.913	2.331	1.748	1.165	0.583	0.000
2.07	7.06	5.922	5.330	4.738	4.146	3.553	2.961	2.369	1.777	1.184	0.592	0.000
2.10	7.05	6.017	5.415	4.814	4.212	3.610	3.008	2.407	1.805	1.203	0.602	0.000
2.14	7.04	6.110	5.499	4.888	4.277	3.666	3.055	2.444	1.833	1.222	0.611	0.000
2.18	7.03	6.203	5.583	4.962	4.342	3.722	3.101	2.481	1.861	1.241	0.620	0.000
2.21	7.02	6.294	5.665	5.036	4.406	3.777	3.147	2.518	1.888	1.259	0.629	0.000
2.25	7.01	6.385	5.746	5.108	4.469	3.831	3.192	2.554	1.915	1.277	0.638	0.000
2.29	7.00	6.474	5.827	5.179	4.532	3.885	3.237	2.590	1.942	1.295	0.647	0.000
2.32	6.99	6.563	5.907	5.250	4.594	3.938	3.281	2.625	1.969	1.313	0.656	0.000
2.36	6.98	6.650	5.985	5.320	4.655	3.990	3.325	2.660	1.995	1.330	0.665	0.000
2.39	6.97	6.737	6.063	5.390	4.716	4.042	3.369	2.695	2.021	1.347	0.674	0.000
2.43	6.96	6.823	6.141	5.458	4.776	4.094	3.411	2.729	2.047	1.365	0.682	0.000
2.46	6.95	6.908	6.217	5.526	4.835	4.145	3.454	2.763	2.072	1.382	0.691	0.000
2.49	6.94	6.992	6.293	5.593	4.894	4.195	3.496	2.797	2.098	1.398	0.699	0.000
2.53	6.93	7.075	6.367	5.660	4.952	4.245	3.537	2.830	2.122	1.415	0.707	0.000
2.56	6.92	7.157	6.441	5.726	5.010	4.294	3.579	2.863	2.147	1.431	0.716	0.000
2.60	6.91	7.239	6.515	5.791	5.067	4.343	3.619	2.895	2.172	1.448	0.724	0.000
2.63	6.90	7.319	6.587	5.855	5.123	4.392	3.660	2.928	2.196	1.464	0.732	0.000
2.66	6.89	7.399	6.659	5.919	5.179	4.439	3.700	2.960	2.220	1.480	0.740	0.000

2.69	6.88	7.478	6.730	5.982	5.235	4.487	3.739	2.991	2.243	1.496	0.748	0.000
2.73	6.87	7.556	6.801	6.045	5.289	4.534	3.778	3.023	2.267	1.511	0.756	0.000
2.76	6.86	7.634	6.870	6.107	5.344	4.580	3.817	3.053	2.290	1.527	0.763	0.000
2.79	6.85	7.710	6.939	6.168	5.397	4.626	3.855	3.084	2.313	1.542	0.771	0.000
2.82	6.84	7.786	7.008	6.229	5.450	4.672	3.893	3.115	2.336	1.557	0.779	0.000
2.86	6.83	7.862	7.075	6.289	5.503	4.717	3.931	3.145	2.358	1.572	0.786	0.000
2.89	6.82	7.936	7.142	6.349	5.555	4.762	3.968	3.174	2.381	1.587	0.794	0.000
2.92	6.81	8.010	7.209	6.408	5.607	4.806	4.005	3.204	2.403	1.602	0.801	0.000
2.95	6.80	8.083	7.274	6.466	5.658	4.850	4.041	3.233	2.425	1.617	0.808	0.000
2.98	6.79	8.155	7.340	6.524	5.709	4.893	4.078	3.262	2.447	1.631	0.816	0.000
3.01	6.78	8.227	7.404	6.581	5.759	4.936	4.113	3.291	2.468	1.645	0.823	0.000
3.04	6.77	8.298	7.468	6.638	5.808	4.979	4.149	3.319	2.489	1.660	0.830	0.000
3.07	6.76	8.368	7.531	6.694	5.858	5.021	4.184	3.347	2.510	1.674	0.837	0.000
3.10	6.75	8.437	7.594	6.750	5.906	5.062	4.219	3.375	2.531	1.687	0.844	0.000
3.13	6.74	8.506	7.656	6.805	5.954	5.104	4.253	3.403	2.552	1.701	0.851	0.000
3.16	6.73	8.575	7.717	6.860	6.002	5.145	4.287	3.430	2.572	1.715	0.857	0.000
3.19	6.72	8.642	7.778	6.914	6.050	5.185	4.321	3.457	2.593	1.728	0.864	0.000
3.22	6.71	8.709	7.838	6.967	6.097	5.226	4.355	3.484	2.613	1.742	0.871	0.000
3.25	6.70	8.776	7.898	7.021	6.143	5.265	4.388	3.510	2.633	1.755	0.878	0.000
3.28	6.69	8.841	7.957	7.073	6.189	5.305	4.421	3.537	2.652	1.768	0.884	0.000
3.31	6.68	8.907	8.016	7.125	6.235	5.344	4.453	3.563	2.672	1.781	0.891	0.000
3.34	6.67	8.971	8.074	7.177	6.280	5.383	4.486	3.588	2.691	1.794	0.897	0.000
3.37	6.66	9.035	8.132	7.228	6.325	5.421	4.518	3.614	2.711	1.807	0.904	0.000
3.40	6.65	9.099	8.189	7.279	6.369	5.459	4.549	3.639	2.730	1.820	0.910	0.000
3.43	6.64	9.161	8.245	7.329	6.413	5.497	4.581	3.665	2.748	1.832	0.916	0.000
3.46	6.63	9.223	8.301	7.379	6.456	5.534	4.612	3.689	2.767	1.845	0.922	0.000
3.49	6.62	9.285	8.357	7.428	6.500	5.571	4.643	3.714	2.786	1.857	0.929	0.000
3.51	6.61	9.346	8.412	7.477	6.542	5.608	4.673	3.738	2.804	1.869	0.935	0.000
3.54	6.60	9.407	8.466	7.525	6.585	5.644	4.703	3.763	2.822	1.881	0.941	0.000
3.57	6.59	9.467	8.520	7.573	6.627	5.680	4.733	3.787	2.840	1.893	0.947	0.000
3.60	6.58	9.526	8.573	7.621	6.668	5.716	4.763	3.810	2.858	1.905	0.953	0.000
3.63	6.57	9.585	8.626	7.668	6.709	5.751	4.792	3.834	2.875	1.917	0.958	0.000
3.65	6.56	9.643	8.679	7.715	6.750	5.786	4.822	3.857	2.893	1.929	0.964	0.000
3.68	6.55	9.701	8.731	7.761	6.791	5.821	4.851	3.880	2.910	1.940	0.970	0.000
3.71	6.54	9.758	8.782	7.807	6.831	5.855	4.879	3.903	2.927	1.952	0.976	0.000
3.73	6.53	9.815	8.834	7.852	6.871	5.889	4.908	3.926	2.945	1.963	0.982	0.000
3.76	6.52	9.871	8.884	7.897	6.910	5.923	4.936	3.949	2.961	1.974	0.987	0.000
3.79	6.51	9.927	8.934	7.942	6.949	5.956	4.964	3.971	2.978	1.985	0.993	0.000
3.82	6.50	9.982	8.984	7.986	6.988	5.989	4.991	3.993	2.995	1.996	0.998	0.000
3.84	6.49	10.037	9.033	8.030	7.026	6.022	5.018	4.015	3.011	2.007	1.004	0.000
3.87	6.48	10.091	9.082	8.073	7.064	6.055	5.046	4.036	3.027	2.018	1.009	0.000
3.90	6.47	10.145	9.130	8.116	7.101	6.087	5.072	4.058	3.043	2.029	1.014	0.000
3.92	6.46	10.198	9.178	8.159	7.139	6.119	5.099	4.079	3.059	2.040	1.020	0.000
3.95	6.45	10.251	9.226	8.201	7.176	6.151	5.126	4.100	3.075	2.050	1.025	0.000
3.97	6.44	10.303	9.273	8.243	7.212	6.182	5.152	4.121	3.091	2.061	1.030	0.000
4.00	6.43	10.355	9.320	8.284	7.249	6.213	5.178	4.142	3.107	2.071	1.036	0.000
4.03	6.42	10.407	9.366	8.325	7.285	6.244	5.203	4.163	3.122	2.081	1.041	0.000
4.05	6.41	10.457	9.412	8.366	7.320	6.274	5.229	4.183	3.137	2.091	1.046	0.000
4.08	6.40	10.508	9.457	8.406	7.355	6.305	5.254	4.203	3.152	2.102	1.051	0.000
4.10	6.39	10.558	9.502	8.446	7.390	6.335	5.279	4.223	3.167	2.112	1.056	0.000
4.13	6.38	10.607	9.547	8.486	7.425	6.364	5.304	4.243	3.182	2.121	1.061	0.000
4.15	6.37	10.656	9.591	8.525	7.460	6.394	5.328	4.263	3.197	2.131	1.066	0.000
4.18	6.36	10.705	9.635	8.564	7.494	6.423	5.353	4.282	3.212	2.141	1.071	0.000
4.21	6.35	10.753	9.678	8.603	7.527	6.452	5.377	4.301	3.226	2.151	1.075	0.000
4.23	6.34	10.801	9.721	8.641	7.561	6.481	5.401	4.320	3.240	2.160	1.080	0.000
4.26	6.33	10.848	9.764	8.679	7.594	6.509	5.424	4.339	3.255	2.170	1.085	0.000
4.28	6.32	10.895	9.806	8.716	7.627	6.537	5.448	4.358	3.269	2.179	1.090	0.000
4.31	6.31	10.942	9.848	8.753	7.659	6.565	5.471	4.377	3.283	2.188	1.094	0.000
4.33	6.30	10.988	9.889	8.790	7.692	6.593	5.494	4.395	3.296	2.198	1.099	0.000
4.35	6.29	11.034	9.930	8.827	7.723	6.620	5.517	4.413	3.310	2.207	1.103	0.000
4.38	6.28	11.079	9.971	8.863	7.755	6.647	5.539	4.431	3.324	2.216	1.108	0.000
4.40	6.27	11.124	10.011	8.899	7.786	6.674	5.562	4.449	3.337	2.225	1.112	0.000
4.43	6.26	11.168	10.051	8.934	7.818	6.701	5.584	4.467	3.350	2.234	1.117	0.000
4.45	6.25	11.212	10.091	8.970	7.848	6.727	5.606	4.485	3.364	2.242	1.121	0.000
4.48	6.24	11.256	10.130	9.004	7.879	6.753	5.628	4.502	3.377	2.251	1.126	0.000
4.50	6.23	11.299	10.169	9.039	7.909	6.779	5.649	4.520	3.390	2.260	1.130	0.000
4.52	6.22	11.342	10.207	9.073	7.939	6.805	5.671	4.537	3.402	2.268	1.134	0.000
4.55	6.21	11.384	10.246	9.107	7.969	6.830	5.692	4.554	3.415	2.277	1.138	0.000
4.57	6.20	11.426	10.283	9.141	7.998	6.856	5.713	4.570	3.428	2.285	1.143	0.000
4.60	6.19	11.468	10.321	9.174	8.027	6.881	5.734	4.587	3.440	2.294	1.147	0.000
4.62	6.18	11.509	10.358	9.207	8.056	6.905	5.754	4.604	3.453	2.302	1.151	0.000
4.64	6.17	11.550	10.395	9.240	8.085	6.930	5.775	4.620	3.465	2.310	1.155	0.000
4.67	6.16	11.590	10.431	9.272	8.113	6.954	5.795	4.636	3.477	2.318	1.159	0.000
4.69	6.15	11.630	10.467	9.304	8.141	6.978	5.815	4.652	3.489	2.326	1.163	0.000
4.71	6.14	11.670	10.503	9.336	8.169	7.000	5.835	4.668	3.501	2.334	1.167	0.000
4.74	6.13	11.710	10.539	9.368	8.197	7.026	5.855	4.684	3.513	2.342	1.171	0.000
4.76	6.12	11.749	10.574	9.399	8.224	7.049	5.874	4.699	3.525	2.350	1.175	0.000
4.78	6.11	11.787	10.609	9.430	8.251	7.072	5.894	4.715	3.536	2.357	1.179	0.000
4.80	6.10	11.826	10.643	9.460	8.278	7.095	5.913	4.730	3.548	2.365	1.183	0.000
4.83	6.09	11.863	10.677	9.491	8.304	7.118	5.932	4.745	3.559	2.373	1.186	0.000
4.85	6.08	11.901	10.711	9.521	8.331	7.141	5.950	4.760	3.570	2.380	1.190	0.000
4.87	6.07	11.938	10.744	9.551	8.357	7.163	5.969	4.775	3.581	2.388	1.194	0.000
4.90	6.06	11.975	10.778	9.580	8.383	7.185	5.988	4.790	3.593	2.395	1.198	0.000
4.92	6.05	12.012	10.810	9.609	8.408	7.207	6.006	4.805	3.603	2.402	1.201	0.000
4.94	6.04	12.048	10.843	9.638	8.433	7.229	6.024	4.819	3.614	2.410	1.205	0.000
4.96	6.03	12.084	10.875	9.667	8.458	7.250	6.042	4.833	3.625	2.417	1.208	0.000
4.99	6.02	12.119	10.907	9.695	8.483	7.271	6.060	4.848	3.636	2.424	1.212	0.000
5.01	6.01	12.154	10.939	9.723	8.508	7.292	6.077	4.862	3.646	2.431	1.215	0.000

5.03	6.00	12.189	10.970	9.751	8.532	7.313	6.094	4.876	3.657	2.438	1.219	0.000
5.05	5.99	12.223	11.001	9.779	8.556	7.334	6.112	4.889	3.667	2.445	1.222	0.000
5.07	5.98	12.258	11.032	9.806	8.580	7.355	6.129	4.903	3.677	2.452	1.226	0.000
5.10	5.97	12.291	11.062	9.833	8.604	7.375	6.146	4.917	3.687	2.458	1.229	0.000
5.12	5.96	12.325	11.092	9.860	8.627	7.395	6.162	4.930	3.697	2.465	1.232	0.000
5.14	5.95	12.358	11.122	9.886	8.651	7.415	6.179	4.943	3.707	2.472	1.236	0.000
5.16	5.94	12.391	11.152	9.913	8.673	7.434	6.195	4.956	3.717	2.478	1.239	0.000
5.18	5.93	12.423	11.181	9.939	8.696	7.454	6.212	4.969	3.727	2.485	1.242	0.000
5.20	5.92	12.455	11.210	9.964	8.719	7.473	6.228	4.982	3.737	2.491	1.246	0.000
5.23	5.91	12.487	11.238	9.990	8.741	7.492	6.244	4.995	3.746	2.497	1.249	0.000
5.25	5.90	12.519	11.267	10.015	8.763	7.511	6.259	5.007	3.756	2.504	1.252	0.000
5.27	5.89	12.550	11.295	10.040	8.785	7.530	6.275	5.020	3.765	2.510	1.255	0.000
5.29	5.88	12.581	11.323	10.065	8.807	7.548	6.290	5.032	3.774	2.516	1.258	0.000
5.31	5.87	12.611	11.350	10.089	8.828	7.567	6.306	5.045	3.783	2.522	1.261	0.000
5.33	5.86	12.642	11.377	10.113	8.849	7.585	6.321	5.057	3.792	2.528	1.264	0.000
5.35	5.85	12.672	11.404	10.137	8.870	7.603	6.336	5.069	3.801	2.534	1.267	0.000
5.37	5.84	12.701	11.431	10.161	8.891	7.621	6.351	5.080	3.810	2.540	1.270	0.000
5.40	5.83	12.731	11.457	10.184	8.911	7.638	6.365	5.092	3.819	2.546	1.273	0.000
5.42	5.82	12.760	11.484	10.208	8.932	7.656	6.380	5.104	3.828	2.552	1.276	0.000
5.44	5.81	12.788	11.509	10.231	8.952	7.673	6.394	5.115	3.836	2.558	1.279	0.000
5.46	5.80	12.817	11.535	10.253	8.972	7.690	6.408	5.127	3.845	2.563	1.282	0.000
5.48	5.79	12.845	11.560	10.276	8.991	7.707	6.422	5.138	3.853	2.569	1.284	0.000
5.50	5.78	12.873	11.585	10.298	9.011	7.724	6.436	5.149	3.862	2.575	1.287	0.000
5.52	5.77	12.900	11.610	10.320	9.030	7.740	6.450	5.160	3.870	2.580	1.290	0.000
5.54	5.76	12.927	11.635	10.342	9.049	7.756	6.464	5.171	3.878	2.585	1.293	0.000
5.56	5.75	12.954	11.659	10.364	9.068	7.773	6.477	5.182	3.886	2.591	1.295	0.000
5.58	5.74	12.981	11.683	10.385	9.087	7.789	6.491	5.192	3.894	2.596	1.298	0.000
5.60	5.73	13.007	11.707	10.406	9.105	7.804	6.504	5.203	3.902	2.601	1.301	0.000
5.62	5.72	13.034	11.730	10.427	9.123	7.820	6.517	5.213	3.910	2.607	1.303	0.000
5.64	5.71	13.059	11.753	10.447	9.142	7.836	6.530	5.224	3.918	2.612	1.306	0.000
5.66	5.70	13.085	11.776	10.468	9.159	7.851	6.542	5.234	3.925	2.617	1.308	0.000
5.68	5.69	13.110	11.799	10.488	9.177	7.866	6.555	5.244	3.933	2.622	1.311	0.000
5.70	5.68	13.135	11.822	10.508	9.195	7.881	6.568	5.254	3.941	2.627	1.314	0.000
5.72	5.67	13.160	11.844	10.528	9.212	7.896	6.580	5.264	3.948	2.632	1.316	0.000
5.74	5.66	13.184	11.866	10.547	9.229	7.910	6.592	5.274	3.955	2.637	1.318	0.000
5.76	5.65	13.208	11.887	10.567	9.246	7.925	6.604	5.283	3.962	2.642	1.321	0.000
5.78	5.64	13.232	11.909	10.586	9.262	7.939	6.616	5.293	3.970	2.646	1.323	0.000
5.80	5.63	13.256	11.930	10.604	9.279	7.953	6.628	5.302	3.977	2.651	1.326	0.000
5.82	5.62	13.279	11.951	10.623	9.295	7.967	6.639	5.312	3.984	2.656	1.328	0.000
5.84	5.61	13.302	11.972	10.642	9.311	7.981	6.651	5.321	3.991	2.660	1.330	0.000
5.86	5.60	13.325	11.992	10.660	9.327	7.995	6.662	5.330	3.997	2.665	1.332	0.000
5.88	5.59	13.347	12.012	10.678	9.343	8.008	6.674	5.339	4.004	2.669	1.335	0.000
5.90	5.58	13.369	12.032	10.695	9.359	8.022	6.685	5.348	4.011	2.674	1.337	0.000
5.92	5.57	13.391	12.052	10.713	9.374	8.035	6.696	5.357	4.017	2.678	1.339	0.000
5.94	5.56	13.413	12.072	10.730	9.389	8.048	6.706	5.365	4.024	2.683	1.341	0.000
5.96	5.55	13.434	12.091	10.748	9.404	8.061	6.717	5.374	4.030	2.687	1.343	0.000
5.98	5.54	13.456	12.110	10.764	9.419	8.073	6.728	5.382	4.037	2.691	1.346	0.000
6.00	5.53	13.476	12.129	10.781	9.433	8.086	6.738	5.391	4.043	2.695	1.348	0.000
6.02	5.52	13.497	12.147	10.798	9.448	8.098	6.749	5.399	4.049	2.699	1.350	0.000
6.04	5.51	13.517	12.166	10.814	9.462	8.110	6.759	5.407	4.055	2.703	1.352	0.000
6.06	5.50	13.538	12.184	10.830	9.476	8.123	6.769	5.415	4.061	2.708	1.354	0.000
6.07	5.49	13.557	12.202	10.846	9.490	8.134	6.779	5.423	4.067	2.711	1.356	0.000
6.09	5.48	13.577	12.219	10.862	9.504	8.146	6.789	5.431	4.073	2.715	1.358	0.000
6.11	5.47	13.596	12.237	10.877	9.517	8.158	6.798	5.439	4.079	2.719	1.360	0.000
6.13	5.46	13.615	12.254	10.892	9.531	8.169	6.808	5.446	4.085	2.723	1.362	0.000
6.15	5.45	13.634	12.271	10.907	9.544	8.181	6.817	5.454	4.090	2.727	1.363	0.000
6.17	5.44	13.653	12.288	10.922	9.557	8.192	6.826	5.461	4.096	2.731	1.365	0.000
6.19	5.43	13.671	12.304	10.937	9.570	8.203	6.836	5.468	4.101	2.734	1.367	0.000
6.21	5.42	13.689	12.320	10.951	9.583	8.214	6.845	5.476	4.107	2.738	1.369	0.000
6.22	5.41	13.707	12.336	10.966	9.595	8.224	6.854	5.483	4.112	2.741	1.371	0.000
6.24	5.40	13.725	12.352	10.980	9.607	8.235	6.862	5.490	4.117	2.745	1.372	0.000
6.26	5.39	13.742	12.368	10.994	9.619	8.245	6.871	5.497	4.123	2.748	1.374	0.000
6.28	5.38	13.759	12.383	11.007	9.631	8.256	6.880	5.504	4.128	2.752	1.376	0.000
6.30	5.37	13.776	12.398	11.021	9.643	8.266	6.888	5.510	4.133	2.755	1.378	0.000
6.32	5.36	13.793	12.413	11.034	9.655	8.276	6.896	5.517	4.138	2.759	1.379	0.000
6.34	5.35	13.809	12.428	11.047	9.666	8.285	6.905	5.524	4.143	2.762	1.381	0.000
6.35	5.34	13.825	12.443	11.060	9.678	8.295	6.913	5.530	4.148	2.765	1.383	0.000
6.37	5.33	13.841	12.457	11.073	9.689	8.305	6.921	5.536	4.152	2.768	1.384	0.000
6.39	5.32	13.857	12.471	11.085	9.700	8.314	6.928	5.543	4.157	2.771	1.386	0.000
6.41	5.31	13.872	12.485	11.098	9.711	8.323	6.936	5.549	4.162	2.774	1.387	0.000
6.43	5.30	13.887	12.499	11.110	9.721	8.332	6.944	5.555	4.166	2.777	1.389	0.000
6.44	5.29	13.902	12.512	11.122	9.732	8.341	6.951	5.561	4.171	2.780	1.390	0.000
6.46	5.28	13.917	12.525	11.134	9.742	8.350	6.959	5.567	4.175	2.783	1.392	0.000
6.48	5.27	13.932	12.538	11.145	9.752	8.359	6.966	5.573	4.179	2.786	1.393	0.000
6.50	5.26	13.946	12.551	11.157	9.762	8.368	6.973	5.578	4.184	2.789	1.395	0.000
6.52	5.25	13.960	12.564	11.168	9.772	8.376	6.980	5.584	4.188	2.792	1.396	0.000
6.53	5.24	13.974	12.576	11.179	9.782	8.384	6.987	5.589	4.192	2.795	1.397	0.000
6.55	5.23	13.987	12.589	11.190	9.791	8.392	6.994	5.595	4.196	2.797	1.399	0.000
6.57	5.22	14.001	12.601	11.200	9.800	8.400	7.000	5.600	4.200	2.800	1.400	0.000
6.59	5.21	14.014	12.612	11.211	9.810	8.408	7.007	5.605	4.204	2.803	1.401	0.000
6.61	5.20	14.027	12.624	11.221	9.819	8.416	7.013	5.611	4.208	2.805	1.403	0.000
6.62	5.19	14.039	12.635	11.231	9.827	8.424	7.020	5.616	4.212	2.808	1.404	0.000
6.64	5.18	14.052	12.646	11.241	9.836	8.431	7.026	5.621	4.215	2.810	1.405	0.000
6.66	5.17	14.064	12.657	11.251	9.845	8.438	7.032	5.626	4.219	2.813	1.406	0.000
6.68	5.16	14.076	12.668	11.261	9.853	8.446	7.038	5.630	4.223	2.815	1.408	0.000
6.69	5.15	14.088	12.679	11.270	9.861	8.453	7.044	5.635	4.226	2.818	1.409	0.000
6.71	5.14	14.099	12.689	11.279	9.869	8.459	7.050	5.640	4.230	2.820	1.410	0.000
6.73	5.13	14.110	12.699	11.288	9.877	8.466	7.055	5.644	4.233	2.822	1.411	0.000

6.75	5.12	14.122	12.709	11.297	9.885	8.473	7.061	5.649	4.236	2.824	1.412	0.000
6.76	5.11	14.132	12.719	11.306	9.893	8.479	7.066	5.653	4.240	2.826	1.413	0.000
6.78	5.10	14.143	12.729	11.315	9.900	8.486	7.072	5.657	4.243	2.829	1.414	0.000
6.80	5.09	14.154	12.738	11.323	9.908	8.492	7.077	5.661	4.246	2.831	1.415	0.000
6.81	5.08	14.164	12.747	11.331	9.915	8.498	7.082	5.666	4.249	2.833	1.416	0.000
6.83	5.07	14.174	12.756	11.339	9.922	8.504	7.087	5.670	4.252	2.835	1.417	0.000
6.85	5.06	14.184	12.765	11.347	9.929	8.510	7.092	5.673	4.255	2.837	1.418	0.000
6.87	5.05	14.193	12.774	11.355	9.935	8.516	7.097	5.677	4.258	2.839	1.419	0.000
6.88	5.04	14.203	12.782	11.362	9.942	8.522	7.101	5.681	4.261	2.841	1.420	0.000
6.90	5.03	14.212	12.791	11.369	9.948	8.527	7.106	5.685	4.264	2.842	1.421	0.000
6.92	5.02	14.221	12.799	11.377	9.954	8.532	7.110	5.688	4.266	2.844	1.422	0.000
6.93	5.01	14.229	12.806	11.384	9.961	8.538	7.115	5.692	4.269	2.846	1.423	0.000
6.95	5.00	14.238	12.814	11.390	9.967	8.543	7.119	5.695	4.271	2.848	1.424	0.000
6.97	4.99	14.246	12.822	11.397	9.972	8.548	7.123	5.699	4.274	2.849	1.425	0.000
6.98	4.98	14.254	12.829	11.403	9.978	8.553	7.127	5.702	4.276	2.851	1.425	0.000
7.00	4.97	14.262	12.836	11.410	9.984	8.557	7.131	5.705	4.279	2.852	1.426	0.000
7.02	4.96	14.270	12.843	11.416	9.989	8.562	7.135	5.708	4.281	2.854	1.427	0.000
7.03	4.95	14.277	12.850	11.422	9.994	8.566	7.139	5.711	4.283	2.855	1.428	0.000
7.05	4.94	14.285	12.856	11.428	9.999	8.571	7.142	5.714	4.285	2.857	1.428	0.000
7.07	4.93	14.292	12.863	11.433	10.004	8.575	7.146	5.717	4.288	2.858	1.429	0.000
7.08	4.92	14.299	12.869	11.439	10.009	8.579	7.149	5.719	4.290	2.860	1.430	0.000
7.10	4.91	14.305	12.875	11.444	10.014	8.583	7.153	5.722	4.292	2.861	1.431	0.000
7.12	4.90	14.312	12.881	11.449	10.018	8.587	7.156	5.725	4.294	2.862	1.431	0.000
7.13	4.89	14.318	12.886	11.454	10.023	8.591	7.159	5.727	4.295	2.864	1.432	0.000
7.15	4.88	14.324	12.892	11.459	10.027	8.594	7.162	5.730	4.297	2.865	1.432	0.000
7.17	4.87	14.330	12.897	11.464	10.031	8.598	7.165	5.732	4.299	2.866	1.433	0.000
7.18	4.86	14.336	12.902	11.468	10.035	8.601	7.168	5.734	4.301	2.867	1.434	0.000
7.20	4.85	14.341	12.907	11.473	10.039	8.605	7.171	5.736	4.302	2.868	1.434	0.000
7.22	4.84	14.346	12.912	11.477	10.042	8.608	7.173	5.739	4.304	2.869	1.435	0.000
7.23	4.83	14.351	12.916	11.481	10.046	8.611	7.176	5.741	4.305	2.870	1.435	0.000
7.25	4.82	14.356	12.921	11.485	10.049	8.614	7.178	5.742	4.307	2.871	1.436	0.000
7.26	4.81	14.361	12.925	11.489	10.053	8.617	7.180	5.744	4.308	2.872	1.436	0.000
7.28	4.80	14.365	12.929	11.492	10.056	8.619	7.183	5.746	4.310	2.873	1.437	0.000
7.30	4.79	14.370	12.933	11.496	10.059	8.622	7.185	5.748	4.311	2.874	1.437	0.000
7.31	4.78	14.374	12.936	11.499	10.062	8.624	7.187	5.749	4.312	2.875	1.437	0.000
7.33	4.77	14.378	12.940	11.502	10.064	8.627	7.189	5.751	4.313	2.876	1.438	0.000
7.34	4.76	14.381	12.943	11.505	10.067	8.629	7.191	5.753	4.314	2.876	1.438	0.000
7.36	4.75	14.385	12.946	11.508	10.069	8.631	7.192	5.754	4.315	2.877	1.438	0.000
7.38	4.74	14.388	12.949	11.510	10.072	8.633	7.194	5.755	4.316	2.878	1.439	0.000
7.39	4.73	14.391	12.952	11.513	10.074	8.635	7.196	5.756	4.317	2.878	1.439	0.000
7.41	4.72	14.394	12.955	11.515	10.076	8.636	7.197	5.758	4.318	2.879	1.439	0.000
7.42	4.71	14.397	12.957	11.517	10.078	8.638	7.198	5.759	4.319	2.879	1.440	0.000
7.44	4.70	14.399	12.959	11.519	10.080	8.640	7.200	5.760	4.320	2.880	1.440	0.000
7.46	4.69	14.402	12.961	11.521	10.081	8.641	7.201	5.761	4.320	2.880	1.440	0.000
7.47	4.68	14.404	12.963	11.523	10.083	8.642	7.202	5.762	4.321	2.881	1.440	0.000
7.49	4.67	14.406	12.965	11.525	10.084	8.643	7.203	5.762	4.322	2.881	1.441	0.000
7.50	4.66	14.408	12.967	11.526	10.085	8.645	7.204	5.763	4.322	2.882	1.441	0.000
7.52	4.65	14.409	12.968	11.527	10.086	8.645	7.205	5.764	4.323	2.882	1.441	0.000
7.53	4.64	14.411	12.969	11.528	10.087	8.646	7.205	5.764	4.323	2.882	1.441	0.000
7.55	4.63	14.412	12.971	11.529	10.088	8.647	7.206	5.765	4.324	2.882	1.441	0.000
7.56	4.62	14.413	12.972	11.530	10.089	8.648	7.206	5.765	4.324	2.883	1.441	0.000
7.58	4.61	14.414	12.972	11.531	10.090	8.648	7.207	5.765	4.324	2.883	1.441	0.000
7.60	4.60	14.414	12.973	11.531	10.090	8.649	7.207	5.766	4.324	2.883	1.441	0.000
7.61	4.59	14.415	12.973	11.532	10.090	8.649	7.207	5.766	4.324	2.883	1.441	0.000
7.63	4.58	14.415	12.974	11.532	10.091	8.649	7.208	5.766	4.325	2.883	1.442	0.000
7.64	4.57	14.415	12.974	11.532	10.091	8.649	7.208	5.766	4.325	2.883	1.442	0.000
7.66	4.56	14.415	12.974	11.532	10.091	8.649	7.208	5.766	4.325	2.883	1.442	0.000
7.67	4.55	14.415	12.973	11.532	10.090	8.649	7.207	5.766	4.324	2.883	1.441	0.000
7.69	4.54	14.414	12.973	11.531	10.090	8.649	7.207	5.766	4.324	2.883	1.441	0.000
7.70	4.53	14.414	12.972	11.531	10.090	8.648	7.207	5.765	4.324	2.883	1.441	0.000
7.72	4.52	14.413	12.972	11.530	10.089	8.648	7.206	5.765	4.324	2.883	1.441	0.000
7.73	4.51	14.412	12.971	11.530	10.088	8.647	7.206	5.765	4.324	2.882	1.441	0.000
7.75	4.50	14.411	12.970	11.529	10.088	8.646	7.205	5.764	4.323	2.882	1.441	0.000
7.76	4.49	14.409	12.969	11.528	10.087	8.646	7.205	5.764	4.323	2.882	1.441	0.000
7.78	4.48	14.408	12.967	11.526	10.086	8.645	7.204	5.763	4.322	2.882	1.441	0.000
7.79	4.47	14.406	12.966	11.525	10.084	8.644	7.203	5.762	4.322	2.881	1.441	0.000
7.81	4.46	14.404	12.964	11.523	10.083	8.643	7.202	5.762	4.321	2.881	1.440	0.000
7.82	4.45	14.402	12.962	11.522	10.082	8.641	7.201	5.761	4.321	2.880	1.440	0.000
7.84	4.44	14.400	12.960	11.520	10.080	8.640	7.200	5.760	4.320	2.880	1.440	0.000
7.85	4.43	14.398	12.958	11.518	10.078	8.639	7.199	5.759	4.319	2.880	1.440	0.000
7.87	4.42	14.395	12.956	11.516	10.077	8.637	7.198	5.758	4.319	2.879	1.440	0.000
7.88	4.41	14.392	12.953	11.514	10.075	8.635	7.196	5.757	4.318	2.878	1.439	0.000
7.90	4.40	14.389	12.950	11.512	10.073	8.634	7.195	5.756	4.317	2.878	1.439	0.000
7.91	4.39	14.386	12.948	11.509	10.070	8.632	7.193	5.755	4.316	2.877	1.439	0.000
7.93	4.38	14.383	12.945	11.506	10.068	8.630	7.191	5.753	4.315	2.877	1.438	0.000
7.94	4.37	14.380	12.942	11.504	10.066	8.628	7.190	5.752	4.314	2.876	1.438	0.000
7.96	4.36	14.376	12.938	11.501	10.063	8.626	7.188	5.750	4.313	2.875	1.438	0.000
7.97	4.35	14.372	12.935	11.498	10.060	8.623	7.186	5.749	4.312	2.874	1.437	0.000
7.99	4.34	14.368	12.931	11.494	10.058	8.621	7.184	5.747	4.310	2.874	1.437	0.000
8.00	4.33	14.364	12.928	11.491	10.055	8.618	7.182	5.746	4.309	2.873	1.436	0.000
8.02	4.32	14.360	12.924	11.488	10.052	8.616	7.180	5.744	4.308	2.872	1.436	0.000
8.03	4.31	14.355	12.920	11.484	10.049	8.613	7.178	5.742	4.307	2.871	1.436	0.000
8.05	4.30	14.351	12.915	11.480	10.045	8.610	7.175	5.740	4.305	2.870	1.435	0.000
8.06	4.29	14.346	12.911	11.477	10.042	8.607	7.173	5.738	4.304	2.869	1.435	0.000
8.07	4.28	14.341	12.907	11.473	10.038	8.604	7.170	5.736	4.302	2.868	1.434	0.000
8.09	4.27	14.336	12.902	11.468	10.035	8.601	7.168	5.734	4.301	2.867	1.434	0.000
8.10	4.26	14.330	12.897	11.464	10.031	8.598	7.165	5.732	4.299	2.866	1.433	0.000
8.12	4.25	14.325	12.892	11.460	10.027	8.595	7.162	5.730	4.297	2.865	1.432	0.000

8.13	4.24	14.319	12.887	11.455	10.023	8.591	7.160	5.728	4.296	2.864	1.432	0.000
8.15	4.23	14.313	12.882	11.451	10.019	8.588	7.157	5.725	4.294	2.863	1.431	0.000
8.16	4.22	14.307	12.876	11.446	10.015	8.584	7.154	5.723	4.292	2.861	1.431	0.000
8.18	4.21	14.301	12.871	11.441	10.011	8.581	7.150	5.720	4.290	2.860	1.430	0.000
8.19	4.20	14.295	12.865	11.436	10.006	8.577	7.147	5.718	4.288	2.859	1.429	0.000
8.20	4.19	14.288	12.859	11.431	10.002	8.573	7.144	5.715	4.286	2.858	1.429	0.000
8.22	4.18	14.281	12.853	11.425	9.997	8.569	7.141	5.713	4.284	2.856	1.428	0.000
8.23	4.17	14.275	12.847	11.420	9.992	8.565	7.137	5.710	4.282	2.855	1.427	0.000
8.25	4.16	14.268	12.841	11.414	9.987	8.561	7.134	5.707	4.280	2.854	1.427	0.000
8.26	4.15	14.260	12.834	11.408	9.982	8.556	7.130	5.704	4.278	2.852	1.426	0.000
8.27	4.14	14.253	12.828	11.403	9.977	8.552	7.127	5.701	4.276	2.851	1.425	0.000
8.29	4.13	14.246	12.821	11.397	9.972	8.547	7.123	5.698	4.274	2.849	1.425	0.000
8.30	4.12	14.238	12.814	11.390	9.967	8.543	7.119	5.695	4.271	2.848	1.424	0.000
8.32	4.11	14.230	12.807	11.384	9.961	8.538	7.115	5.692	4.269	2.846	1.423	0.000
8.33	4.10	14.222	12.800	11.378	9.956	8.533	7.111	5.689	4.267	2.844	1.422	0.000
8.35	4.09	14.214	12.793	11.371	9.950	8.528	7.107	5.686	4.264	2.843	1.421	0.000
8.36	4.08	14.206	12.785	11.365	9.944	8.523	7.103	5.682	4.262	2.841	1.421	0.000
8.37	4.07	14.197	12.778	11.358	9.938	8.518	7.099	5.679	4.259	2.839	1.420	0.000
8.39	4.06	14.189	12.770	11.351	9.932	8.513	7.094	5.675	4.257	2.838	1.419	0.000
8.40	4.05	14.180	12.762	11.344	9.926	8.508	7.090	5.672	4.254	2.836	1.418	0.000
8.41	4.04	14.171	12.754	11.337	9.920	8.503	7.085	5.668	4.251	2.834	1.417	0.000
8.43	4.03	14.162	12.746	11.329	9.913	8.497	7.081	5.665	4.249	2.832	1.416	0.000
8.44	4.02	14.153	12.737	11.322	9.907	8.492	7.076	5.661	4.246	2.831	1.415	0.000
8.46	4.01	14.143	12.729	11.315	9.900	8.486	7.072	5.657	4.243	2.829	1.414	0.000
8.47	4.00	14.134	12.720	11.307	9.894	8.480	7.067	5.653	4.240	2.827	1.413	0.000
8.48	3.99	14.124	12.711	11.299	9.887	8.474	7.062	5.650	4.237	2.825	1.412	0.000
8.50	3.98	14.114	12.703	11.291	9.880	8.468	7.057	5.646	4.234	2.823	1.411	0.000
8.51	3.97	14.104	12.694	11.283	9.873	8.462	7.052	5.642	4.231	2.821	1.410	0.000
8.52	3.96	14.094	12.684	11.275	9.866	8.456	7.047	5.637	4.228	2.819	1.409	0.000
8.54	3.95	14.083	12.675	11.267	9.858	8.450	7.042	5.633	4.225	2.817	1.408	0.000
8.55	3.94	14.073	12.666	11.258	9.851	8.444	7.036	5.629	4.222	2.815	1.407	0.000
8.57	3.93	14.062	12.656	11.250	9.843	8.437	7.031	5.625	4.219	2.812	1.406	0.000
8.58	3.92	14.051	12.646	11.241	9.836	8.431	7.026	5.621	4.215	2.810	1.405	0.000
8.59	3.91	14.040	12.636	11.232	9.828	8.424	7.020	5.616	4.212	2.808	1.404	0.000
8.61	3.90	14.029	12.626	11.223	9.820	8.418	7.015	5.612	4.209	2.806	1.403	0.000
8.62	3.89	14.018	12.616	11.214	9.813	8.411	7.009	5.607	4.205	2.804	1.402	0.000
8.63	3.88	14.006	12.606	11.205	9.804	8.404	7.003	5.603	4.202	2.801	1.401	0.000
8.65	3.87	13.995	12.595	11.196	9.796	8.397	6.997	5.598	4.198	2.799	1.399	0.000
8.66	3.86	13.983	12.585	11.186	9.788	8.390	6.992	5.593	4.195	2.797	1.398	0.000
8.67	3.85	13.971	12.574	11.177	9.780	8.383	6.986	5.588	4.191	2.794	1.397	0.000
8.69	3.84	13.959	12.563	11.167	9.771	8.375	6.980	5.584	4.188	2.792	1.396	0.000
8.70	3.83	13.947	12.552	11.157	9.763	8.368	6.973	5.579	4.184	2.789	1.395	0.000
8.71	3.82	13.934	12.541	11.148	9.754	8.361	6.967	5.574	4.180	2.787	1.393	0.000
8.73	3.81	13.922	12.530	11.138	9.745	8.353	6.961	5.569	4.177	2.784	1.392	0.000
8.74	3.80	13.909	12.518	11.127	9.736	8.346	6.955	5.564	4.173	2.782	1.391	0.000
8.75	3.79	13.896	12.507	11.117	9.728	8.338	6.948	5.559	4.169	2.779	1.390	0.000
8.77	3.78	13.883	12.495	11.107	9.718	8.330	6.942	5.553	4.165	2.777	1.388	0.000
8.78	3.77	13.870	12.483	11.096	9.709	8.322	6.935	5.548	4.161	2.774	1.387	0.000
8.79	3.76	13.857	12.471	11.086	9.700	8.314	6.929	5.543	4.157	2.771	1.386	0.000
8.81	3.75	13.844	12.459	11.075	9.691	8.306	6.922	5.537	4.153	2.769	1.384	0.000
8.82	3.74	13.830	12.447	11.064	9.681	8.298	6.915	5.532	4.149	2.766	1.383	0.000
8.83	3.73	13.816	12.435	11.053	9.671	8.290	6.908	5.527	4.145	2.763	1.382	0.000
8.85	3.72	13.802	12.422	11.042	9.662	8.281	6.901	5.521	4.141	2.760	1.380	0.000
8.86	3.71	13.788	12.410	11.031	9.652	8.273	6.894	5.515	4.137	2.758	1.379	0.000
8.87	3.70	13.774	12.397	11.019	9.642	8.265	6.887	5.510	4.132	2.755	1.377	0.000
8.88	3.69	13.760	12.384	11.008	9.632	8.256	6.880	5.504	4.128	2.752	1.376	0.000
8.90	3.68	13.745	12.371	10.996	9.622	8.247	6.873	5.498	4.124	2.749	1.375	0.000
8.91	3.67	13.731	12.358	10.985	9.612	8.238	6.865	5.492	4.119	2.746	1.373	0.000
8.92	3.66	13.716	12.344	10.973	9.601	8.230	6.858	5.486	4.115	2.743	1.372	0.000
8.94	3.65	13.701	12.331	10.961	9.591	8.221	6.851	5.480	4.110	2.740	1.370	0.000
8.95	3.64	13.686	12.317	10.949	9.580	8.212	6.843	5.474	4.106	2.737	1.369	0.000
8.96	3.63	13.671	12.304	10.937	9.570	8.203	6.835	5.468	4.101	2.734	1.367	0.000
8.97	3.62	13.655	12.290	10.924	9.559	8.193	6.828	5.462	4.097	2.731	1.366	0.000
8.99	3.61	13.640	12.276	10.912	9.548	8.184	6.820	5.456	4.092	2.728	1.364	0.000
9.00	3.60	13.624	12.262	10.899	9.537	8.175	6.812	5.450	4.087	2.725	1.362	0.000
9.01	3.59	13.609	12.248	10.887	9.526	8.165	6.804	5.443	4.083	2.722	1.361	0.000
9.03	3.58	13.593	12.233	10.874	9.515	8.156	6.796	5.437	4.078	2.719	1.359	0.000
9.04	3.57	13.577	12.219	10.861	9.504	8.146	6.788	5.431	4.073	2.715	1.358	0.000
9.05	3.56	13.560	12.204	10.848	9.492	8.136	6.780	5.424	4.068	2.712	1.356	0.000
9.06	3.55	13.544	12.190	10.835	9.481	8.126	6.772	5.418	4.063	2.709	1.354	0.000
9.08	3.54	13.527	12.175	10.822	9.469	8.116	6.764	5.411	4.058	2.705	1.353	0.000
9.09	3.53	13.511	12.160	10.809	9.458	8.106	6.755	5.404	4.053	2.702	1.351	0.000
9.10	3.52	13.494	12.145	10.795	9.446	8.096	6.747	5.398	4.048	2.699	1.349	0.000
9.11	3.51	13.477	12.129	10.782	9.434	8.086	6.739	5.391	4.043	2.695	1.348	0.000
9.13	3.50	13.460	12.114	10.768	9.422	8.076	6.730	5.384	4.038	2.692	1.346	0.000
9.14	3.49	13.443	12.098	10.754	9.410	8.066	6.721	5.377	4.033	2.689	1.344	0.000
9.15	3.48	13.425	12.083	10.740	9.398	8.055	6.713	5.370	4.028	2.685	1.343	0.000
9.17	3.47	13.408	12.067	10.726	9.385	8.045	6.704	5.363	4.022	2.682	1.341	0.000
9.18	3.46	13.390	12.051	10.712	9.373	8.034	6.695	5.356	4.017	2.678	1.339	0.000
9.19	3.45	13.372	12.035	10.698	9.361	8.023	6.686	5.349	4.012	2.674	1.337	0.000
9.20	3.44	13.354	12.019	10.684	9.348	8.013	6.677	5.342	4.006	2.671	1.335	0.000
9.22	3.43	13.336	12.003	10.669	9.335	8.002	6.668	5.335	4.001	2.667	1.334	0.000
9.23	3.42	13.318	11.986	10.654	9.323	7.991	6.659	5.327	3.995	2.664	1.332	0.000
9.24	3.41	13.300	11.970	10.640	9.310	7.980	6.650	5.320	3.990	2.660	1.330	0.000
9.25	3.40	13.281	11.953	10.625	9.297	7.969	6.641	5.312	3.984	2.656	1.328	0.000
9.26	3.39	13.263	11.936	10.610	9.284	7.958	6.631	5.305	3.979	2.653	1.326	0.000
9.28	3.38	13.244	11.919	10.595	9.271	7.946	6.622	5.298	3.973	2.649	1.324	0.000
9.29	3.37	13.225	11.902	10.580	9.257	7.935	6.612	5.290	3.967	2.645	1.322	0.000

9.30	3.36	13.206	11.885	10.565	9.244	7.923	6.603	5.282	3.962	2.641	1.321	0.000
9.31	3.35	13.187	11.868	10.549	9.231	7.912	6.593	5.275	3.956	2.637	1.319	0.000
9.33	3.34	13.167	11.851	10.534	9.217	7.900	6.584	5.267	3.950	2.633	1.317	0.000
9.34	3.33	13.148	11.833	10.518	9.203	7.889	6.574	5.259	3.944	2.630	1.315	0.000
9.35	3.32	13.128	11.815	10.503	9.190	7.877	6.564	5.251	3.938	2.626	1.313	0.000
9.36	3.31	13.108	11.798	10.487	9.176	7.865	6.554	5.243	3.933	2.622	1.311	0.000
9.38	3.30	13.088	11.780	10.471	9.162	7.853	6.544	5.235	3.927	2.618	1.309	0.000
9.39	3.29	13.068	11.762	10.455	9.148	7.841	6.534	5.227	3.921	2.614	1.307	0.000
9.40	3.28	13.048	11.743	10.439	9.134	7.829	6.524	5.219	3.914	2.610	1.305	0.000
9.41	3.27	13.028	11.725	10.422	9.120	7.817	6.514	5.211	3.908	2.606	1.303	0.000
9.42	3.26	13.008	11.707	10.406	9.105	7.805	6.504	5.203	3.902	2.602	1.301	0.000
9.44	3.25	12.987	11.688	10.390	9.091	7.792	6.493	5.195	3.896	2.597	1.299	0.000
9.45	3.24	12.966	11.670	10.373	9.076	7.780	6.483	5.186	3.890	2.593	1.297	0.000
9.46	3.23	12.945	11.651	10.356	9.062	7.767	6.473	5.178	3.884	2.589	1.295	0.000
9.47	3.22	12.924	11.632	10.340	9.047	7.755	6.462	5.170	3.877	2.585	1.292	0.000
9.48	3.21	12.903	11.613	10.323	9.032	7.742	6.452	5.161	3.871	2.581	1.290	0.000
9.50	3.20	12.882	11.594	10.306	9.017	7.729	6.441	5.153	3.865	2.576	1.288	0.000
9.51	3.19	12.861	11.575	10.288	9.002	7.716	6.430	5.144	3.858	2.572	1.286	0.000
9.52	3.18	12.839	11.555	10.271	8.987	7.703	6.420	5.136	3.852	2.568	1.284	0.000
9.53	3.17	12.817	11.536	10.254	8.972	7.690	6.409	5.127	3.845	2.563	1.282	0.000
9.54	3.16	12.796	11.516	10.236	8.957	7.677	6.398	5.118	3.839	2.559	1.280	0.000
9.56	3.15	12.774	11.496	10.219	8.942	7.664	6.387	5.109	3.832	2.555	1.277	0.000
9.57	3.14	12.752	11.476	10.201	8.926	7.651	6.376	5.101	3.825	2.550	1.275	0.000
9.58	3.13	12.729	11.456	10.184	8.911	7.638	6.365	5.092	3.819	2.546	1.273	0.000
9.59	3.12	12.707	11.436	10.166	8.895	7.624	6.354	5.083	3.812	2.541	1.271	0.000
9.60	3.11	12.685	11.416	10.148	8.879	7.611	6.342	5.074	3.805	2.537	1.268	0.000
9.61	3.10	12.662	11.396	10.130	8.863	7.597	6.331	5.065	3.799	2.532	1.266	0.000
9.63	3.09	12.639	11.375	10.111	8.847	7.584	6.320	5.056	3.792	2.528	1.264	0.000
9.64	3.08	12.616	11.355	10.093	8.831	7.570	6.308	5.047	3.785	2.523	1.262	0.000
9.65	3.07	12.593	11.334	10.075	8.815	7.556	6.297	5.037	3.778	2.519	1.259	0.000
9.66	3.06	12.570	11.313	10.056	8.799	7.542	6.285	5.028	3.771	2.514	1.257	0.000
9.67	3.05	12.547	11.292	10.038	8.783	7.528	6.273	5.019	3.764	2.509	1.255	0.000
9.69	3.04	12.524	11.271	10.019	8.766	7.514	6.262	5.009	3.757	2.505	1.252	0.000
9.70	3.03	12.500	11.250	10.000	8.750	7.500	6.250	5.000	3.750	2.500	1.250	0.000
9.71	3.02	12.476	11.229	9.981	8.733	7.486	6.238	4.991	3.743	2.495	1.248	0.000
9.72	3.01	12.453	11.207	9.962	8.717	7.472	6.226	4.981	3.736	2.491	1.245	0.000
9.73	3.00	12.429	11.186	9.943	8.700	7.457	6.214	4.971	3.729	2.486	1.243	0.000
9.74	2.99	12.405	11.164	9.924	8.683	7.443	6.202	4.962	3.721	2.481	1.240	0.000
9.75	2.98	12.380	11.142	9.904	8.666	7.428	6.190	4.952	3.714	2.476	1.238	0.000
9.77	2.97	12.356	11.120	9.885	8.649	7.414	6.178	4.942	3.707	2.471	1.236	0.000
9.78	2.96	12.332	11.098	9.865	8.632	7.399	6.166	4.933	3.699	2.466	1.233	0.000
9.79	2.95	12.307	11.076	9.846	8.615	7.384	6.154	4.923	3.692	2.461	1.231	0.000
9.80	2.94	12.282	11.054	9.826	8.598	7.369	6.141	4.913	3.685	2.456	1.228	0.000
9.81	2.93	12.257	11.032	9.806	8.580	7.354	6.129	4.903	3.677	2.451	1.226	0.000
9.82	2.92	12.233	11.009	9.786	8.563	7.340	6.116	4.893	3.670	2.447	1.223	0.000
9.84	2.91	12.207	10.987	9.766	8.545	7.324	6.104	4.883	3.662	2.441	1.221	0.000
9.85	2.90	12.182	10.964	9.746	8.528	7.309	6.091	4.873	3.655	2.436	1.218	0.000
9.86	2.89	12.157	10.941	9.725	8.510	7.294	6.078	4.863	3.647	2.431	1.216	0.000
9.87	2.88	12.131	10.918	9.705	8.492	7.279	6.066	4.853	3.639	2.426	1.213	0.000
9.88	2.87	12.106	10.895	9.685	8.474	7.263	6.053	4.842	3.632	2.421	1.211	0.000
9.89	2.86	12.080	10.872	9.664	8.456	7.248	6.040	4.832	3.624	2.416	1.208	0.000
9.90	2.85	12.054	10.849	9.643	8.438	7.232	6.027	4.822	3.616	2.411	1.205	0.000
9.92	2.84	12.028	10.825	9.622	8.420	7.217	6.014	4.811	3.608	2.406	1.203	0.000
9.93	2.83	12.002	10.802	9.602	8.401	7.201	6.001	4.801	3.601	2.400	1.200	0.000
9.94	2.82	11.976	10.778	9.581	8.383	7.185	5.988	4.790	3.593	2.395	1.198	0.000
9.95	2.81	11.949	10.754	9.559	8.365	7.170	5.975	4.780	3.585	2.390	1.195	0.000
9.96	2.80	11.923	10.731	9.538	8.346	7.154	5.961	4.769	3.577	2.385	1.192	0.000
9.97	2.79	11.896	10.707	9.517	8.327	7.138	5.948	4.758	3.569	2.379	1.190	0.000
9.98	2.78	11.869	10.682	9.496	8.309	7.122	5.935	4.748	3.561	2.374	1.187	0.000
9.99	2.77	11.843	10.658	9.474	8.290	7.106	5.921	4.737	3.553	2.369	1.184	0.000
10.00	2.76	11.816	10.634	9.452	8.271	7.089	5.908	4.726	3.545	2.363	1.182	0.000
10.02	2.75	11.788	10.610	9.431	8.252	7.073	5.894	4.715	3.537	2.358	1.179	0.000
10.03	2.74	11.761	10.585	9.409	8.233	7.057	5.881	4.704	3.528	2.352	1.176	0.000
10.04	2.73	11.734	10.560	9.387	8.214	7.040	5.867	4.693	3.520	2.347	1.173	0.000
10.05	2.72	11.706	10.536	9.365	8.194	7.024	5.853	4.682	3.512	2.341	1.171	0.000
10.06	2.71	11.679	10.511	9.343	8.175	7.007	5.839	4.671	3.504	2.336	1.168	0.000
10.07	2.70	11.651	10.486	9.321	8.156	6.990	5.825	4.660	3.495	2.330	1.165	0.000
10.08	2.69	11.623	10.461	9.298	8.136	6.974	5.811	4.649	3.487	2.325	1.162	0.000
10.09	2.68	11.595	10.435	9.276	8.116	6.957	5.797	4.638	3.478	2.319	1.159	0.000
10.10	2.67	11.567	10.410	9.253	8.097	6.940	5.783	4.627	3.470	2.313	1.157	0.000
10.12	2.66	11.538	10.385	9.231	8.077	6.923	5.769	4.615	3.462	2.308	1.154	0.000
10.13	2.65	11.510	10.359	9.208	8.057	6.906	5.755	4.604	3.453	2.302	1.151	0.000
10.14	2.64	11.481	10.333	9.185	8.037	6.889	5.741	4.593	3.444	2.296	1.148	0.000
10.15	2.63	11.453	10.308	9.162	8.017	6.872	5.726	4.581	3.436	2.291	1.145	0.000
10.16	2.62	11.424	10.282	9.139	7.997	6.854	5.712	4.570	3.427	2.285	1.142	0.000
10.17	2.61	11.395	10.256	9.116	7.977	6.837	5.698	4.558	3.419	2.279	1.140	0.000
10.18	2.60	11.366	10.229	9.093	7.956	6.820	5.683	4.546	3.410	2.273	1.137	0.000
10.19	2.59	11.337	10.203	9.070	7.936	6.802	5.668	4.535	3.401	2.267	1.134	0.000
10.20	2.58	11.308	10.177	9.046	7.915	6.785	5.654	4.523	3.392	2.262	1.131	0.000
10.21	2.57	11.278	10.150	9.023	7.895	6.767	5.639	4.511	3.383	2.256	1.128	0.000
10.23	2.56	11.249	10.124	8.999	7.874	6.749	5.624	4.500	3.375	2.250	1.125	0.000
10.24	2.55	11.219	10.097	8.975	7.853	6.731	5.610	4.488	3.366	2.244	1.122	0.000
10.25	2.54	11.189	10.070	8.952	7.833	6.714	5.595	4.476	3.357	2.238	1.119	0.000
10.26	2.53	11.159	10.044	8.928	7.812	6.696	5.580	4.464	3.348	2.232	1.116	0.000
10.27	2.52	11.129	10.017	8.904	7.791	6.678	5.565	4.452	3.339	2.226	1.113	0.000
10.28	2.51	11.099	9.989	8.879	7.770	6.660	5.550	4.440	3.330	2.220	1.110	0.000
10.29	2.50	11.069	9.962	8.855	7.748	6.641	5.535	4.428	3.321	2.214	1.107	0.000
10.30	2.49	11.039	9.935	8.831	7.727	6.623	5.519	4.415	3.312	2.208	1.104	0.000

10.31	2.48	11.008	9.907	8.807	7.706	6.605	5.504	4.403	3.302	2.202	1.101	0.000
10.32	2.47	10.978	9.880	8.782	7.684	6.587	5.489	4.391	3.293	2.196	1.098	0.000
10.33	2.46	10.947	9.852	8.758	7.663	6.568	5.473	4.379	3.284	2.189	1.095	0.000
10.34	2.45	10.916	9.824	8.733	7.641	6.550	5.458	4.366	3.275	2.183	1.092	0.000
10.35	2.44	10.885	9.797	8.708	7.620	6.531	5.443	4.354	3.266	2.177	1.089	0.000
10.36	2.43	10.854	9.769	8.683	7.598	6.512	5.427	4.342	3.256	2.171	1.085	0.000
10.38	2.42	10.823	9.740	8.658	7.576	6.494	5.411	4.329	3.247	2.165	1.082	0.000
10.39	2.41	10.791	9.712	8.633	7.554	6.475	5.396	4.317	3.237	2.158	1.079	0.000
10.40	2.40	10.760	9.684	8.608	7.532	6.456	5.380	4.304	3.228	2.152	1.076	0.000
10.41	2.39	10.728	9.655	8.583	7.510	6.437	5.364	4.291	3.218	2.146	1.073	0.000
10.42	2.38	10.697	9.627	8.557	7.488	6.418	5.348	4.279	3.209	2.139	1.070	0.000
10.43	2.37	10.665	9.598	8.532	7.465	6.399	5.332	4.266	3.199	2.133	1.066	0.000
10.44	2.36	10.633	9.570	8.506	7.443	6.380	5.316	4.253	3.190	2.127	1.063	0.000
10.45	2.35	10.601	9.541	8.481	7.421	6.360	5.300	4.240	3.180	2.120	1.060	0.000
10.46	2.34	10.569	9.512	8.455	7.398	6.341	5.284	4.227	3.171	2.114	1.057	0.000
10.47	2.33	10.536	9.483	8.429	7.375	6.322	5.268	4.215	3.161	2.107	1.054	0.000
10.48	2.32	10.504	9.453	8.403	7.353	6.302	5.252	4.202	3.151	2.101	1.050	0.000
10.49	2.31	10.471	9.424	8.377	7.330	6.283	5.236	4.189	3.141	2.094	1.047	0.000
10.50	2.30	10.439	9.395	8.351	7.307	6.263	5.219	4.175	3.132	2.088	1.044	0.000
10.51	2.29	10.406	9.365	8.325	7.284	6.244	5.203	4.162	3.122	2.081	1.041	0.000
10.52	2.28	10.373	9.336	8.298	7.261	6.224	5.186	4.149	3.112	2.075	1.037	0.000
10.53	2.27	10.340	9.306	8.272	7.238	6.204	5.170	4.136	3.102	2.068	1.034	0.000
10.54	2.26	10.307	9.276	8.245	7.215	6.184	5.153	4.123	3.092	2.061	1.031	0.000
10.55	2.25	10.274	9.246	8.219	7.191	6.164	5.137	4.109	3.082	2.055	1.027	0.000
10.56	2.24	10.240	9.216	8.192	7.168	6.144	5.120	4.096	3.072	2.048	1.024	0.000
10.57	2.23	10.207	9.186	8.165	7.145	6.124	5.103	4.083	3.062	2.041	1.021	0.000
10.58	2.22	10.173	9.156	8.138	7.121	6.104	5.087	4.069	3.052	2.035	1.017	0.000
10.59	2.21	10.139	9.125	8.111	7.098	6.084	5.070	4.056	3.042	2.028	1.014	0.000
10.60	2.20	10.105	9.095	8.084	7.074	6.063	5.053	4.042	3.032	2.021	1.011	0.000
10.62	2.19	10.072	9.064	8.057	7.050	6.043	5.036	4.029	3.021	2.014	1.007	0.000
10.63	2.18	10.037	9.034	8.030	7.026	6.022	5.019	4.015	3.011	2.007	1.004	0.000
10.64	2.17	10.003	9.003	8.003	7.002	6.002	5.002	4.001	3.001	2.001	1.000	0.000
10.65	2.16	9.969	8.972	7.975	6.978	5.981	4.984	3.988	2.991	1.994	0.997	0.000
10.66	2.15	9.934	8.941	7.948	6.954	5.961	4.967	3.974	2.980	1.987	0.993	0.000
10.67	2.14	9.900	8.910	7.920	6.930	5.940	4.950	3.960	2.970	1.980	0.990	0.000
10.68	2.13	9.865	8.879	7.892	6.906	5.919	4.933	3.946	2.960	1.973	0.987	0.000
10.69	2.12	9.830	8.847	7.864	6.881	5.898	4.915	3.932	2.949	1.966	0.983	0.000
10.70	2.11	9.796	8.816	7.836	6.857	5.877	4.898	3.918	2.939	1.959	0.980	0.000
10.71	2.10	9.761	8.785	7.808	6.832	5.856	4.880	3.904	2.928	1.952	0.976	0.000
10.72	2.09	9.725	8.753	7.780	6.808	5.835	4.863	3.890	2.918	1.945	0.973	0.000
10.73	2.08	9.690	8.721	7.752	6.783	5.814	4.845	3.876	2.907	1.938	0.969	0.000
10.74	2.07	9.655	8.689	7.724	6.758	5.793	4.827	3.862	2.896	1.931	0.965	0.000
10.75	2.06	9.619	8.657	7.695	6.734	5.772	4.810	3.848	2.886	1.924	0.962	0.000
10.76	2.05	9.584	8.625	7.667	6.709	5.750	4.792	3.833	2.875	1.917	0.958	0.000
10.77	2.04	9.548	8.593	7.638	6.684	5.729	4.774	3.819	2.864	1.910	0.955	0.000
10.78	2.03	9.512	8.561	7.610	6.659	5.707	4.756	3.805	2.854	1.902	0.951	0.000
10.79	2.02	9.476	8.529	7.581	6.633	5.686	4.738	3.791	2.843	1.895	0.948	0.000
10.80	2.01	9.440	8.496	7.552	6.608	5.664	4.720	3.776	2.832	1.888	0.944	0.000
10.81	2.00	9.404	8.464	7.523	6.583	5.642	4.702	3.762	2.821	1.881	0.940	0.000
10.82	1.99	9.368	8.431	7.494	6.557	5.621	4.684	3.747	2.810	1.874	0.937	0.000
10.83	1.98	9.331	8.398	7.465	6.532	5.599	4.666	3.733	2.799	1.866	0.933	0.000
10.84	1.97	9.295	8.365	7.436	6.506	5.577	4.647	3.718	2.788	1.859	0.929	0.000
10.85	1.96	9.258	8.332	7.407	6.481	5.555	4.629	3.703	2.777	1.852	0.926	0.000
10.86	1.95	9.221	8.299	7.377	6.455	5.533	4.611	3.689	2.766	1.844	0.922	0.000
10.87	1.94	9.185	8.266	7.348	6.429	5.511	4.592	3.674	2.755	1.837	0.918	0.000
10.88	1.93	9.148	8.233	7.318	6.403	5.489	4.574	3.659	2.744	1.830	0.915	0.000
10.89	1.92	9.111	8.199	7.288	6.377	5.466	4.555	3.644	2.733	1.822	0.911	0.000
10.90	1.91	9.073	8.166	7.259	6.351	5.444	4.537	3.629	2.722	1.815	0.907	0.000
10.91	1.90	9.036	8.132	7.229	6.325	5.422	4.518	3.614	2.711	1.807	0.904	0.000
10.92	1.89	8.999	8.099	7.199	6.299	5.399	4.499	3.599	2.700	1.800	0.900	0.000
10.93	1.88	8.961	8.065	7.169	6.273	5.377	4.481	3.584	2.688	1.792	0.896	0.000
10.94	1.87	8.923	8.031	7.139	6.246	5.354	4.462	3.569	2.677	1.785	0.892	0.000
10.95	1.86	8.886	7.997	7.108	6.220	5.331	4.443	3.554	2.666	1.777	0.889	0.000
10.96	1.85	8.848	7.963	7.078	6.193	5.309	4.424	3.539	2.654	1.770	0.885	0.000
10.96	1.84	8.810	7.929	7.048	6.167	5.286	4.405	3.524	2.643	1.762	0.881	0.000
10.97	1.83	8.772	7.894	7.017	6.140	5.263	4.386	3.509	2.631	1.754	0.877	0.000
10.98	1.82	8.733	7.860	6.987	6.113	5.240	4.367	3.493	2.620	1.747	0.873	0.000
10.99	1.81	8.695	7.826	6.956	6.087	5.217	4.348	3.478	2.609	1.739	0.870	0.000
11.00	1.80	8.657	7.791	6.925	6.060	5.194	4.328	3.463	2.597	1.731	0.866	0.000
11.01	1.79	8.618	7.756	6.894	6.033	5.171	4.309	3.447	2.585	1.724	0.862	0.000
11.02	1.78	8.579	7.721	6.864	6.006	5.148	4.290	3.432	2.574	1.716	0.858	0.000
11.03	1.77	8.541	7.687	6.832	5.978	5.124	4.270	3.416	2.562	1.708	0.854	0.000
11.04	1.76	8.502	7.652	6.801	5.951	5.101	4.251	3.401	2.551	1.700	0.850	0.000
11.05	1.75	8.463	7.616	6.770	5.924	5.078	4.231	3.385	2.539	1.693	0.846	0.000
11.06	1.74	8.424	7.581	6.739	5.896	5.054	4.212	3.369	2.527	1.685	0.842	0.000
11.07	1.73	8.384	7.546	6.707	5.869	5.031	4.192	3.354	2.515	1.677	0.838	0.000
11.08	1.72	8.345	7.510	6.676	5.841	5.007	4.172	3.338	2.503	1.669	0.834	0.000
11.09	1.71	8.306	7.475	6.644	5.814	4.983	4.153	3.322	2.492	1.661	0.831	0.000
11.10	1.70	8.266	7.439	6.613	5.786	4.960	4.133	3.306	2.480	1.653	0.827	0.000
11.11	1.69	8.226	7.404	6.581	5.758	4.936	4.113	3.291	2.468	1.645	0.823	0.000
11.12	1.68	8.187	7.368	6.549	5.731	4.912	4.093	3.275	2.456	1.637	0.819	0.000
11.13	1.67	8.147	7.332	6.517	5.703	4.888	4.073	3.259	2.444	1.629	0.815	0.000
11.14	1.66	8.107	7.296	6.485	5.675	4.864	4.053	3.243	2.432	1.621	0.811	0.000
11.15	1.65	8.066	7.260	6.453	5.647	4.840	4.033	3.227	2.420	1.613	0.807	0.000
11.16	1.64	8.026	7.224	6.421	5.618	4.816	4.013	3.210	2.408	1.605	0.803	0.000
11.17	1.63	7.986	7.187	6.389	5.590	4.792	3.993	3.194	2.396	1.597	0.799	0.000
11.18	1.62	7.945	7.151	6.356	5.562	4.767	3.973	3.178	2.384	1.589	0.795	0.000
11.19	1.61	7.905	7.114	6.324	5.533	4.743	3.952	3.162	2.371	1.581	0.790	0.000

11.19	1.60	7.864	7.078	6.291	5.505	4.719	3.932	3.146	2.359	1.573	0.786	0.000
11.20	1.59	7.823	7.041	6.259	5.476	4.694	3.912	3.129	2.347	1.565	0.782	0.000
11.21	1.58	7.783	7.004	6.226	5.448	4.670	3.891	3.113	2.335	1.557	0.778	0.000
11.22	1.57	7.742	6.967	6.193	5.419	4.645	3.871	3.097	2.322	1.548	0.774	0.000
11.23	1.56	7.700	6.930	6.160	5.390	4.620	3.850	3.080	2.310	1.540	0.770	0.000
11.24	1.55	7.659	6.893	6.127	5.361	4.596	3.830	3.064	2.298	1.532	0.766	0.000
11.25	1.54	7.618	6.856	6.094	5.332	4.571	3.809	3.047	2.285	1.524	0.762	0.000
11.26	1.53	7.576	6.819	6.061	5.303	4.546	3.788	3.031	2.273	1.515	0.758	0.000
11.27	1.52	7.535	6.781	6.028	5.274	4.521	3.767	3.014	2.260	1.507	0.753	0.000
11.28	1.51	7.493	6.744	5.995	5.245	4.496	3.747	2.997	2.248	1.499	0.749	0.000
11.29	1.50	7.451	6.706	5.961	5.216	4.471	3.726	2.981	2.235	1.490	0.745	0.000
11.30	1.49	7.410	6.669	5.928	5.187	4.446	3.705	2.964	2.223	1.482	0.741	0.000
11.31	1.48	7.368	6.631	5.894	5.157	4.421	3.684	2.947	2.210	1.474	0.737	0.000
11.32	1.47	7.325	6.593	5.860	5.128	4.395	3.663	2.930	2.198	1.465	0.733	0.000
11.33	1.46	7.283	6.555	5.827	5.098	4.370	3.642	2.913	2.185	1.457	0.728	0.000
11.33	1.45	7.241	6.517	5.793	5.069	4.345	3.620	2.896	2.172	1.448	0.724	0.000
11.34	1.44	7.198	6.479	5.759	5.039	4.319	3.599	2.879	2.160	1.440	0.720	0.000
11.35	1.43	7.156	6.440	5.725	5.009	4.294	3.578	2.862	2.147	1.431	0.716	0.000
11.36	1.42	7.113	6.402	5.691	4.979	4.268	3.557	2.845	2.134	1.423	0.711	0.000
11.37	1.41	7.071	6.364	5.656	4.949	4.242	3.535	2.828	2.121	1.414	0.707	0.000
11.38	1.40	7.028	6.325	5.622	4.919	4.217	3.514	2.811	2.108	1.406	0.703	0.000
11.39	1.39	6.985	6.286	5.588	4.889	4.191	3.492	2.794	2.095	1.397	0.698	0.000
11.40	1.38	6.942	6.248	5.553	4.859	4.165	3.471	2.777	2.083	1.388	0.694	0.000
11.41	1.37	6.898	6.209	5.519	4.829	4.139	3.449	2.759	2.070	1.380	0.690	0.000
11.42	1.36	6.855	6.170	5.484	4.799	4.113	3.428	2.742	2.057	1.371	0.686	0.000
11.43	1.35	6.812	6.131	5.449	4.768	4.087	3.406	2.725	2.044	1.362	0.681	0.000
11.44	1.34	6.768	6.091	5.415	4.738	4.061	3.384	2.707	2.030	1.354	0.677	0.000
11.44	1.33	6.725	6.052	5.380	4.707	4.035	3.362	2.690	2.017	1.345	0.672	0.000
11.45	1.32	6.681	6.013	5.345	4.677	4.009	3.340	2.672	2.004	1.336	0.668	0.000
11.46	1.31	6.637	5.973	5.310	4.646	3.982	3.319	2.655	1.991	1.327	0.664	0.000
11.47	1.30	6.593	5.934	5.275	4.615	3.956	3.297	2.637	1.978	1.319	0.659	0.000
11.48	1.29	6.549	5.894	5.239	4.584	3.929	3.275	2.620	1.965	1.310	0.655	0.000
11.49	1.28	6.505	5.855	5.204	4.554	3.903	3.253	2.602	1.952	1.301	0.651	0.000
11.50	1.27	6.461	5.815	5.169	4.523	3.876	3.230	2.584	1.938	1.292	0.646	0.000
11.51	1.26	6.416	5.775	5.133	4.491	3.850	3.208	2.567	1.925	1.283	0.642	0.000
11.52	1.25	6.372	5.735	5.098	4.460	3.823	3.186	2.549	1.912	1.274	0.637	0.000
11.53	1.24	6.327	5.695	5.062	4.429	3.796	3.164	2.531	1.898	1.265	0.633	0.000
11.53	1.23	6.283	5.654	5.026	4.398	3.770	3.141	2.513	1.885	1.257	0.628	0.000
11.54	1.22	6.238	5.614	4.990	4.367	3.743	3.119	2.495	1.871	1.248	0.624	0.000
11.55	1.21	6.193	5.574	4.954	4.335	3.716	3.096	2.477	1.858	1.239	0.619	0.000
11.56	1.20	6.148	5.533	4.918	4.304	3.689	3.074	2.459	1.844	1.230	0.615	0.000
11.57	1.19	6.103	5.493	4.882	4.272	3.662	3.051	2.441	1.831	1.221	0.610	0.000
11.58	1.18	6.058	5.452	4.846	4.240	3.635	3.029	2.423	1.817	1.212	0.606	0.000
11.59	1.17	6.012	5.411	4.810	4.209	3.607	3.006	2.405	1.804	1.202	0.601	0.000
11.60	1.16	5.967	5.370	4.774	4.177	3.580	2.983	2.387	1.790	1.193	0.597	0.000
11.61	1.15	5.921	5.329	4.737	4.145	3.553	2.961	2.369	1.776	1.184	0.592	0.000
11.61	1.14	5.876	5.288	4.701	4.113	3.525	2.938	2.350	1.763	1.175	0.588	0.000
11.62	1.13	5.830	5.247	4.664	4.081	3.498	2.915	2.332	1.749	1.166	0.583	0.000
11.63	1.12	5.784	5.206	4.627	4.049	3.470	2.892	2.314	1.735	1.157	0.578	0.000
11.64	1.11	5.738	5.164	4.591	4.017	3.443	2.869	2.295	1.721	1.148	0.574	0.000
11.65	1.10	5.692	5.123	4.554	3.984	3.415	2.846	2.277	1.708	1.138	0.569	0.000
11.66	1.09	5.646	5.081	4.517	3.952	3.388	2.823	2.258	1.694	1.129	0.565	0.000
11.67	1.08	5.600	5.040	4.480	3.920	3.360	2.800	2.240	1.680	1.120	0.560	0.000
11.68	1.07	5.553	4.998	4.443	3.887	3.332	2.777	2.221	1.666	1.111	0.555	0.000
11.68	1.06	5.507	4.956	4.405	3.855	3.304	2.753	2.203	1.652	1.101	0.551	0.000
11.69	1.05	5.460	4.914	4.368	3.822	3.276	2.730	2.184	1.638	1.092	0.546	0.000
11.70	1.04	5.414	4.872	4.331	3.789	3.248	2.707	2.165	1.624	1.083	0.541	0.000
11.71	1.03	5.367	4.830	4.293	3.757	3.220	2.683	2.147	1.610	1.073	0.537	0.000
11.72	1.02	5.320	4.788	4.256	3.724	3.192	2.660	2.128	1.596	1.064	0.532	0.000
11.73	1.01	5.273	4.746	4.218	3.691	3.164	2.636	2.109	1.582	1.055	0.527	0.000
11.74	1.00	5.226	4.703	4.181	3.658	3.135	2.613	2.090	1.568	1.045	0.523	0.000
11.75	0.99	5.179	4.661	4.143	3.625	3.107	2.589	2.071	1.554	1.036	0.518	0.000
11.75	0.98	5.131	4.618	4.105	3.592	3.079	2.566	2.052	1.539	1.026	0.513	0.000
11.76	0.97	5.084	4.575	4.067	3.559	3.050	2.542	2.034	1.525	1.017	0.508	0.000
11.77	0.96	5.038	4.533	4.029	3.525	3.022	2.518	2.014	1.511	1.007	0.504	0.000
11.78	0.95	4.989	4.490	3.991	3.492	2.993	2.494	1.995	1.497	0.998	0.499	0.000
11.79	0.94	4.941	4.447	3.953	3.459	2.965	2.470	1.976	1.482	0.988	0.494	0.000
11.80	0.93	4.893	4.404	3.914	3.425	2.936	2.447	1.957	1.468	0.979	0.489	0.000
11.81	0.92	4.845	4.361	3.876	3.392	2.907	2.423	1.938	1.454	0.969	0.485	0.000
11.81	0.91	4.797	4.317	3.838	3.358	2.878	2.399	1.919	1.439	0.959	0.480	0.000
11.82	0.90	4.749	4.274	3.799	3.324	2.849	2.374	1.900	1.425	0.950	0.475	0.000
11.83	0.89	4.701	4.231	3.761	3.290	2.820	2.350	1.880	1.410	0.940	0.470	0.000
11.84	0.88	4.652	4.187	3.722	3.257	2.791	2.326	1.861	1.396	0.930	0.465	0.000
11.85	0.87	4.604	4.143	3.683	3.223	2.762	2.302	1.842	1.381	0.921	0.460	0.000
11.86	0.86	4.555	4.100	3.644	3.189	2.733	2.278	1.822	1.367	0.911	0.456	0.000
11.87	0.85	4.507	4.056	3.605	3.155	2.704	2.253	1.803	1.352	0.901	0.451	0.000
11.87	0.84	4.458	4.012	3.566	3.120	2.675	2.229	1.783	1.337	0.892	0.446	0.000
11.88	0.83	4.409	3.968	3.527	3.086	2.645	2.204	1.764	1.323	0.882	0.441	0.000
11.89	0.82	4.360	3.924	3.488	3.052	2.616	2.180	1.744	1.308	0.872	0.436	0.000
11.90	0.81	4.311	3.880	3.449	3.018	2.587	2.155	1.724	1.293	0.862	0.431	0.000
11.91	0.80	4.262	3.836	3.409	2.983	2.557	2.131	1.705	1.279	0.852	0.426	0.000
11.92	0.79	4.212	3.791	3.370	2.949	2.527	2.106	1.685	1.264	0.842	0.421	0.000
11.92	0.78	4.163	3.747	3.330	2.914	2.498	2.082	1.665	1.249	0.833	0.416	0.000
11.93	0.77	4.114	3.702	3.291	2.879	2.468	2.057	1.645	1.234	0.823	0.411	0.000
11.94	0.76	4.064	3.658	3.251	2.845	2.438	2.032	1.626	1.219	0.813	0.406	0.000
11.95	0.75	4.014	3.613	3.211	2.810	2.409	2.007	1.606	1.204	0.803	0.401	0.000
11.96	0.74	3.964	3.568	3.172	2.775	2.379	1.982	1.586	1.189	0.793	0.396	0.000
11.97	0.73	3.915	3.523	3.132	2.740	2.349	1.957	1.566	1.174	0.783	0.391	0.000

11.97	0.72	3.865	3.478	3.092	2.705	2.319	1.932	1.546	1.159	0.773	0.386	0.000
11.98	0.71	3.814	3.433	3.052	2.670	2.289	1.907	1.526	1.144	0.763	0.381	0.000
11.99	0.70	3.764	3.388	3.011	2.635	2.259	1.882	1.506	1.129	0.753	0.376	0.000
12.00	0.69	3.714	3.343	2.971	2.600	2.228	1.857	1.486	1.114	0.743	0.371	0.000
12.01	0.68	3.663	3.297	2.931	2.564	2.198	1.832	1.465	1.099	0.733	0.366	0.000
12.02	0.67	3.613	3.252	2.890	2.529	2.168	1.806	1.445	1.084	0.723	0.361	0.000
12.02	0.66	3.562	3.206	2.850	2.494	2.137	1.781	1.425	1.069	0.712	0.356	0.000
12.03	0.65	3.512	3.160	2.809	2.458	2.107	1.756	1.405	1.053	0.702	0.351	0.000
12.04	0.64	3.461	3.115	2.769	2.423	2.076	1.730	1.384	1.038	0.692	0.346	0.000
12.05	0.63	3.410	3.069	2.728	2.387	2.046	1.705	1.364	1.023	0.682	0.341	0.000
12.06	0.62	3.359	3.023	2.687	2.351	2.015	1.679	1.344	1.008	0.672	0.336	0.000
12.07	0.61	3.308	2.977	2.646	2.315	1.985	1.654	1.323	0.992	0.662	0.331	0.000
12.07	0.60	3.257	2.931	2.605	2.280	1.954	1.628	1.303	0.977	0.651	0.326	0.000
12.08	0.59	3.205	2.885	2.564	2.244	1.923	1.603	1.282	0.962	0.641	0.321	0.000
12.09	0.58	3.154	2.838	2.523	2.208	1.892	1.577	1.262	0.946	0.631	0.315	0.000
12.10	0.57	3.102	2.792	2.482	2.172	1.861	1.551	1.241	0.931	0.620	0.310	0.000
12.11	0.56	3.051	2.746	2.440	2.135	1.830	1.525	1.220	0.915	0.610	0.305	0.000
12.12	0.55	2.999	2.699	2.399	2.099	1.799	1.499	1.200	0.900	0.600	0.300	0.000
12.12	0.54	2.947	2.652	2.358	2.063	1.768	1.474	1.179	0.884	0.589	0.295	0.000
12.13	0.53	2.895	2.606	2.316	2.027	1.737	1.448	1.158	0.869	0.579	0.290	0.000
12.14	0.52	2.843	2.559	2.274	1.990	1.706	1.422	1.137	0.853	0.569	0.284	0.000
12.15	0.51	2.791	2.512	2.233	1.954	1.675	1.395	1.116	0.837	0.558	0.279	0.000
12.16	0.50	2.739	2.465	2.191	1.917	1.643	1.369	1.095	0.822	0.548	0.274	0.000
12.16	0.49	2.686	2.418	2.149	1.880	1.612	1.343	1.075	0.806	0.537	0.269	0.000
12.17	0.48	2.634	2.371	2.107	1.844	1.580	1.317	1.054	0.790	0.527	0.263	0.000
12.18	0.47	2.581	2.323	2.065	1.807	1.549	1.291	1.033	0.774	0.516	0.258	0.000
12.19	0.46	2.529	2.276	2.023	1.770	1.517	1.264	1.011	0.759	0.506	0.253	0.000
12.20	0.45	2.476	2.228	1.981	1.733	1.486	1.238	0.990	0.743	0.495	0.248	0.000
12.20	0.44	2.423	2.181	1.939	1.696	1.454	1.212	0.969	0.727	0.485	0.242	0.000
12.21	0.43	2.370	2.133	1.896	1.659	1.422	1.185	0.948	0.711	0.474	0.237	0.000
12.22	0.42	2.317	2.085	1.854	1.622	1.390	1.159	0.927	0.695	0.463	0.232	0.000
12.23	0.41	2.264	2.038	1.811	1.585	1.358	1.132	0.906	0.679	0.453	0.226	0.000
12.24	0.40	2.211	1.990	1.769	1.548	1.326	1.105	0.884	0.663	0.442	0.221	0.000
12.24	0.39	2.157	1.942	1.726	1.510	1.294	1.079	0.863	0.647	0.431	0.216	0.000
12.25	0.38	2.104	1.894	1.683	1.473	1.262	1.052	0.842	0.631	0.421	0.210	0.000
12.26	0.37	2.050	1.845	1.640	1.435	1.230	1.025	0.820	0.615	0.410	0.205	0.000
12.27	0.36	1.997	1.797	1.597	1.398	1.198	0.998	0.799	0.599	0.399	0.200	0.000
12.28	0.35	1.943	1.749	1.554	1.360	1.166	0.972	0.777	0.583	0.389	0.194	0.000
12.28	0.34	1.889	1.700	1.511	1.322	1.134	0.945	0.756	0.567	0.378	0.189	0.000
12.29	0.33	1.835	1.652	1.468	1.285	1.101	0.918	0.734	0.551	0.367	0.184	0.000
12.30	0.32	1.781	1.603	1.425	1.247	1.069	0.891	0.713	0.534	0.356	0.178	0.000
12.31	0.31	1.727	1.554	1.382	1.209	1.036	0.864	0.691	0.518	0.345	0.173	0.000
12.32	0.30	1.673	1.506	1.338	1.171	1.004	0.836	0.669	0.502	0.335	0.167	0.000
12.32	0.29	1.619	1.457	1.295	1.133	0.971	0.809	0.647	0.486	0.324	0.162	0.000
12.33	0.28	1.564	1.408	1.251	1.095	0.939	0.782	0.626	0.469	0.313	0.156	0.000
12.34	0.27	1.510	1.359	1.208	1.057	0.906	0.755	0.604	0.453	0.302	0.151	0.000
12.35	0.26	1.455	1.310	1.164	1.019	0.873	0.728	0.582	0.437	0.291	0.146	0.000
12.35	0.25	1.400	1.260	1.120	0.980	0.840	0.700	0.560	0.420	0.280	0.140	0.000
12.36	0.24	1.345	1.211	1.076	0.942	0.807	0.673	0.538	0.404	0.269	0.135	0.000
12.37	0.23	1.291	1.161	1.032	0.903	0.774	0.645	0.516	0.387	0.258	0.129	0.000
12.38	0.22	1.235	1.112	0.988	0.865	0.741	0.618	0.494	0.371	0.247	0.124	0.000
12.39	0.21	1.180	1.062	0.944	0.826	0.708	0.590	0.472	0.354	0.236	0.118	0.000
12.39	0.20	1.125	1.013	0.900	0.788	0.675	0.563	0.450	0.338	0.225	0.113	0.000
12.40	0.19	1.070	0.963	0.856	0.749	0.642	0.535	0.428	0.321	0.214	0.107	0.000
12.41	0.18	1.014	0.913	0.812	0.710	0.609	0.507	0.406	0.304	0.203	0.101	0.000
12.42	0.17	0.959	0.863	0.767	0.671	0.575	0.479	0.384	0.288	0.192	0.096	0.000
12.42	0.16	0.903	0.813	0.723	0.632	0.542	0.452	0.361	0.271	0.181	0.090	0.000
12.43	0.15	0.848	0.763	0.678	0.593	0.509	0.424	0.339	0.254	0.170	0.085	0.000
12.44	0.14	0.792	0.713	0.633	0.554	0.475	0.396	0.317	0.238	0.158	0.079	0.000
12.45	0.13	0.736	0.662	0.589	0.515	0.441	0.368	0.294	0.221	0.147	0.074	0.000
12.46	0.12	0.680	0.612	0.544	0.476	0.408	0.340	0.272	0.204	0.136	0.068	0.000
12.46	0.11	0.624	0.561	0.499	0.437	0.374	0.312	0.249	0.187	0.125	0.062	0.000
12.47	0.10	0.567	0.511	0.454	0.397	0.340	0.284	0.227	0.170	0.113	0.057	0.000
12.48	0.09	0.511	0.460	0.409	0.358	0.307	0.256	0.204	0.153	0.102	0.051	0.000
12.49	0.08	0.455	0.409	0.364	0.318	0.273	0.227	0.182	0.136	0.091	0.045	0.000
12.49	0.07	0.398	0.358	0.319	0.279	0.239	0.199	0.159	0.119	0.080	0.040	0.000
12.50	0.06	0.342	0.307	0.273	0.239	0.205	0.171	0.137	0.102	0.068	0.034	0.000
12.51	0.05	0.285	0.256	0.228	0.199	0.171	0.142	0.114	0.085	0.057	0.028	0.000
12.52	0.04	0.228	0.205	0.183	0.160	0.137	0.114	0.091	0.068	0.046	0.023	0.000
12.52	0.03	0.171	0.154	0.137	0.120	0.103	0.086	0.069	0.051	0.034	0.017	0.000
12.53	0.02	0.114	0.103	0.091	0.080	0.069	0.057	0.046	0.034	0.023	0.011	0.000
12.54	0.01	0.057	0.051	0.046	0.040	0.034	0.029	0.023	0.017	0.011	0.006	0.000
12.55	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**Líneas de la misma magnitud y dirección de los esfuerzo,
que actuan en la cubierta cilíndrica:**

Esfuerzos normales:

La tabla 4, es un condensado de los puntos de la cubierta que están afectados por esfuerzos normales de la misma magnitud.

En el encabezado de cada columna, se consigna la magnitud de los esfuerzos; los de valor negativo corresponden a esfuerzos de tracción y los positivos a esfuerzos de compresión.

La dirección es perpendicular o normal a la directriz o sección transversal, o sea paralela al eje longitudinal de la cubierta.

Su posición está dada en los siguientes renglones de cada columna, las tres columnas de cada magnitud corresponden a las coordenadas espaciales de los puntos, en donde el esfuerzo tiene la misma magnitud.

Esfuerzos cortantes:

La tabla 6, es el resumen de la magnitud, dirección y localización de los esfuerzos cortantes que produce la flexión.

El encabezado de las columnas corresponde a la magnitud de los esfuerzos cortantes que actúan en la cubierta.

Los renglones siguientes son las tres columnas de las coordenadas espaciales de los puntos de la cubierta, que están sometidos a la misma magnitud de esfuerzo y por último su dirección es vertical.

-9 kg/cm ²			-8 kg/cm ²			-7 kg/cm ²			-6 kg/cm ²			-5 kg/cm ²			-4 kg/cm ²			-3 kg/cm ²			-2 kg/cm ²			-1 kg/cm ²			0 eje neutro			1 kg/cm ²			2 kg/cm ²			3 kg/cm ²		
X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z
11.71	1.03	3.00	12.46	0.11	2.00	12.02	0.67	2.00	11.54	1.22	2.00	11.02	1.78	2.00	12.28	0.35	1.00	11.38	1.40	1.00	10.34	2.45	1.00	9.11	3.51	1.00	7.64	4.57	10.00	5.82	5.62	1.00	3.31	6.68	1.00	4.48	6.24	2.00
11.05	1.75	4.00	11.36	1.42	3.00	10.98	1.82	3.00	10.59	2.21	3.00	10.18	2.60	3.00	10.46	2.34	2.00	9.86	2.89	2.00	9.19	3.45	2.00	8.46	4.01	2.00				6.75	5.12	2.00	5.70	5.68	2.00	5.58	5.74	3.00
10.65	2.16	5.00	10.75	2.06	4.00	10.42	2.38	4.00	10.08	2.69	4.00	9.73	3.00	4.00	9.74	2.99	3.00	9.26	3.39	3.00	8.77	3.78	3.00	8.23	4.17	3.00				7.02	4.96	3.00	6.34	5.35	3.00	6.06	5.50	4.00
10.38	2.42	6.00	10.36	2.43	5.00	10.08	2.69	5.00	9.78	2.96	5.00	9.46	3.23	5.00	9.36	3.31	4.00	8.96	3.63	4.00	8.55	3.94	4.00	8.12	4.25	4.00				7.15	4.88	4.00	6.62	5.19	4.00	6.30	5.37	5.00
10.20	2.58	7.00	10.12	2.66	6.00	9.85	2.90	6.00	9.57	3.14	6.00	9.29	3.37	6.00	9.13	3.50	5.00	8.79	3.76	5.00	8.43	4.03	5.00	8.05	4.30	5.00				7.23	4.83	5.00	6.78	5.10	5.00	6.46	5.28	6.00
10.08	2.69	8.00	9.96	2.80	7.00	9.71	3.02	7.00	9.45	3.24	7.00	9.18	3.46	7.00	8.99	3.61	6.00	8.67	3.85	6.00	8.35	4.09	6.00	8.02	4.32	6.00				7.26	4.81	6.00	6.88	5.04	6.00	6.57	5.22	7.00
10.03	2.74	9.00	9.86	2.89	8.00	9.61	3.10	8.00	9.36	3.31	8.00	9.10	3.52	8.00	8.90	3.68	7.00	8.61	3.90	7.00	8.30	4.12	7.00	7.99	4.34	7.00				7.31	4.78	7.00	6.93	5.01	7.00	6.62	5.19	8.00
10.00	2.76	10.00	9.80	2.94	9.00	9.56	3.15	9.00	9.31	3.35	9.00	9.06	3.55	9.00	8.83	3.73	8.00	8.55	3.94	8.00	8.26	4.15	8.00	7.97	4.35	8.00				7.33	4.77	8.00	6.98	4.98	8.00	6.66	5.17	9.00
			9.78	2.96	10.00	9.54	3.16	10.00	9.30	3.36	10.00	9.05	3.56	10.00	8.81	3.75	9.00	8.54	3.95	9.00	8.25	4.16	9.00	7.96	4.36	9.00				7.34	4.76	9.00	7.00	4.97	9.00	6.68	5.16	10.00
															8.79	3.76	10.00	8.52	3.96	10.00	8.23	4.17	10.00	7.94	4.36	10.00				7.36	4.75	10.00	7.02	4.96	10.00			

4 kg/cm ²			5 kg/cm ²			6 kg/cm ²			7 kg/cm ²			8 kg/cm ²			9 kg/cm ²			10 kg/cm ²			11 kg/cm ²			12 kg/cm ²			13 kg/cm ²			14 kg/cm ²					
X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z
0.88	7.34	1.00	3.73	6.53	3.00	2.56	6.92	3.00	1.03	7.31	3.00	2.03	7.07	4.00	0.68	7.38	4.00	1.39	7.23	5.00	1.60	7.18	6.00	0.41	7.43	6.00	0.46	7.42	7.00	0.05	7.49	8.00			
2.98	6.79	2.00	4.74	6.13	4.00	3.97	6.44	4.00	3.10	6.75	4.00	3.25	6.70	5.00	2.39	6.97	5.00	2.46	6.95	6.00	2.32	6.99	7.00	1.52	7.20	7.00	1.12	7.29	8.00	0.57	7.40	9.00			
4.71	6.14	3.00	5.25	5.90	5.00	4.64	6.17	5.00	4.00	6.43	5.00	3.90	6.47	6.00	3.22	6.71	6.00	3.04	6.77	7.00	2.76	6.86	8.00	2.03	7.07	8.00	1.56	7.19	9.00	0.73	7.37	10.00			
5.42	5.82	4.00	5.54	5.76	6.00	5.05	5.99	6.00	4.50	6.23	6.00	4.28	6.32	7.00	3.71	6.54	7.00	3.40	6.65	8.00	2.98	6.79	9.00	2.32	6.99	9.00	1.64	7.17	10.00						
5.80	5.63	5.00	5.72	5.67	7.00	5.29	5.88	7.00	4.80	6.10	7.00	4.50	6.23	8.00	3.97	6.44	8.00	3.57	6.59	9.00	3.04	6.77	10.00	2.39	6.97	10.00									
6.02	5.52	6.00	5.84	5.61	8.00	5.42	5.82	8.00	4.96	6.03	8.00	4.62	6.18	9.00	4.13	6.38	9.00	3.63	6.57	10.00															
6.17	5.44	7.00	5.90	5.58	9.00	5.50	5.78	9.00	5.07	5.98	9.00	4.64	6.17	10.00	4.15	6.37	10.00																		
6.24	5.40	8.00	5.92	5.57	10.00	5.52	5.77	10.00	5.10	5.97	10.00																								
6.28	5.38	9.00																																	
6.30	5.37	10.00																																	

**LINEAS ISOBARICAS
ESFUERZOS NORMALES
PRODUCIDOS POR LA FLEXION**

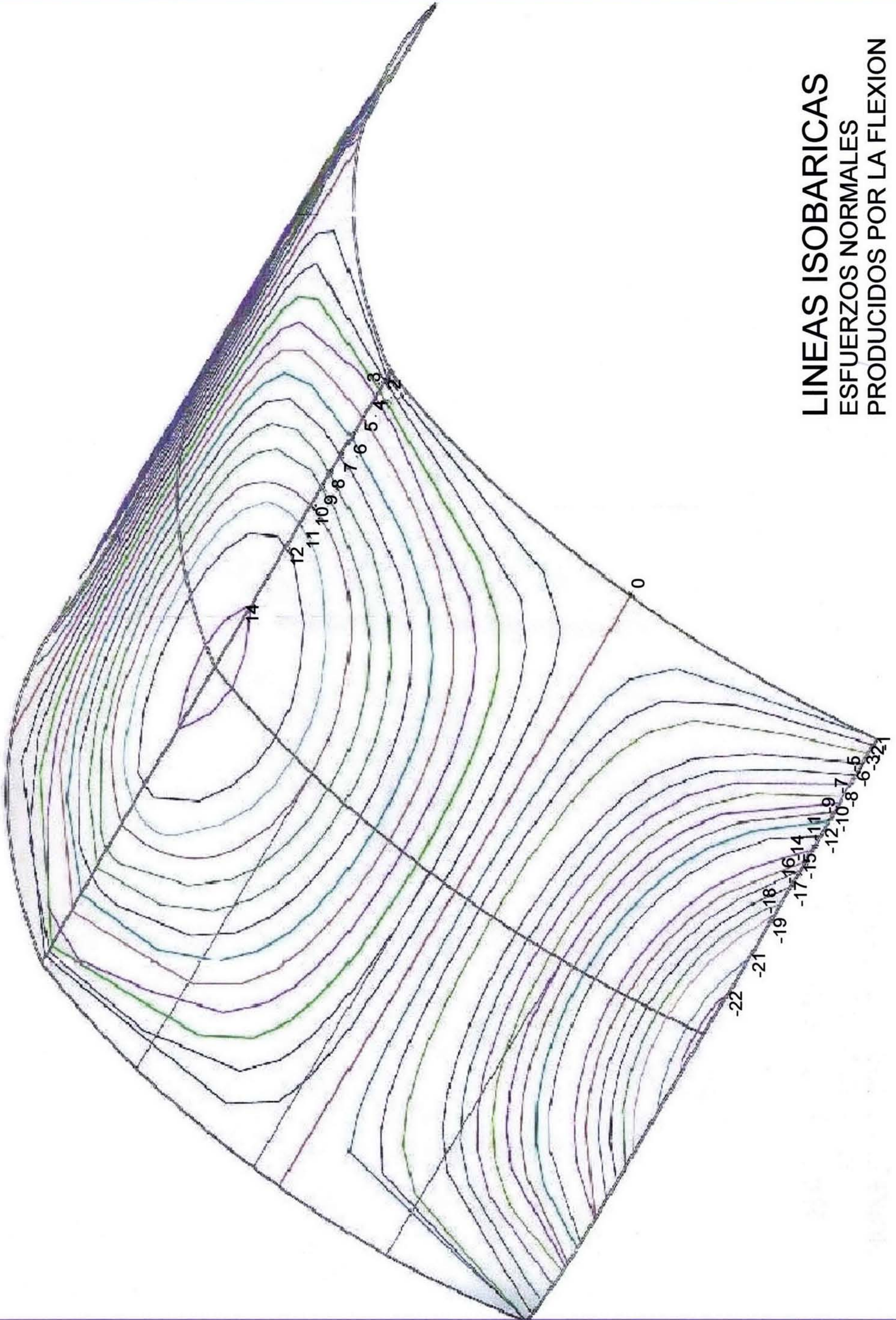
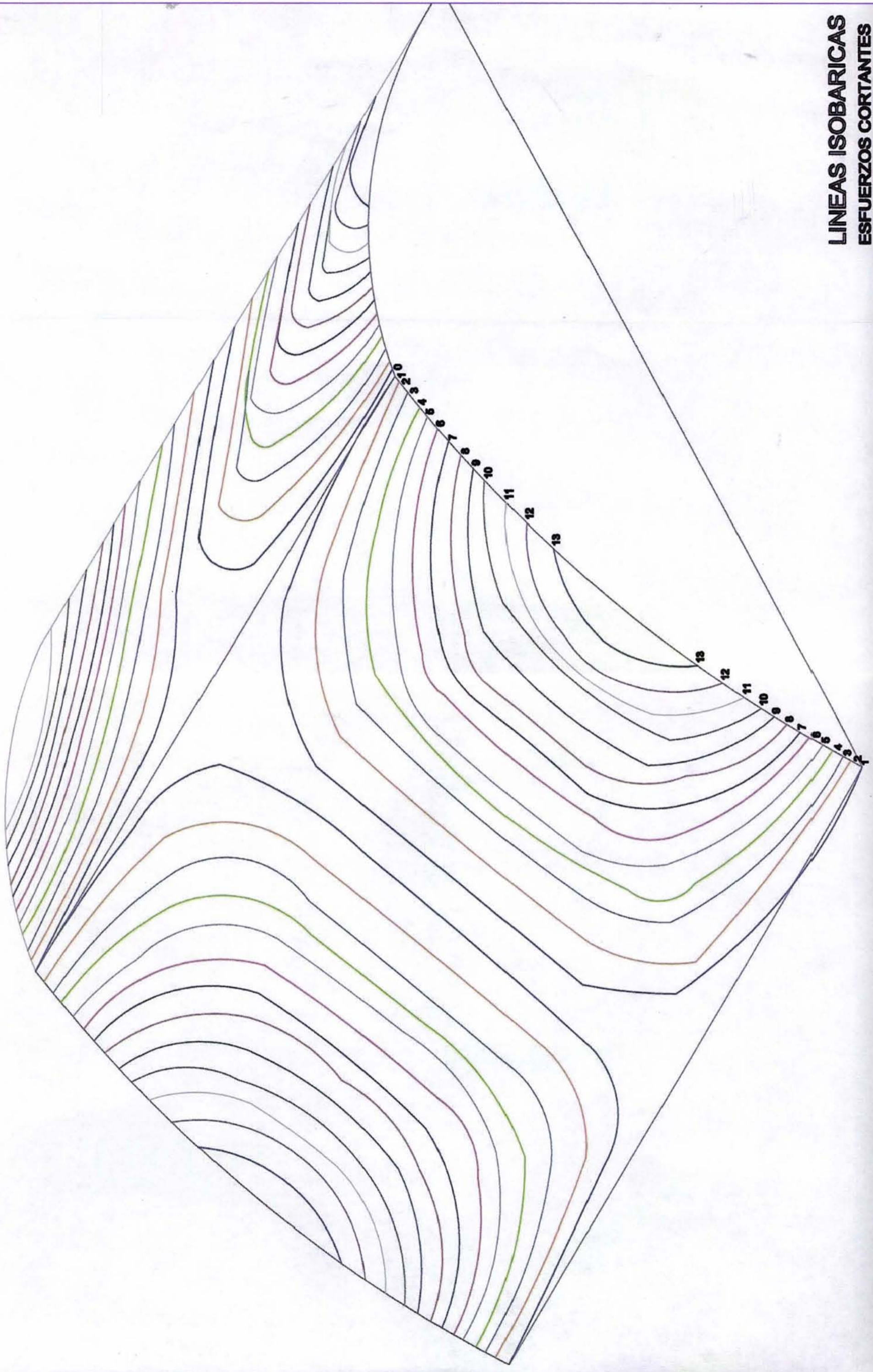


TABLA 6

COORDENADAS DE LAS LINEAS DE IGUAL ESFUERZO CORTANTE, DEBIDO A FLEXION EN UN CILINDRO CIRCULAR APUNTADO, SUJETO A UN SISTEMA DE CARGA UNIFORMEMENTE REPARTIDO

1 kg/cm ²			2 kg/cm ²			3 kg/cm ²			4 kg/cm ²			5 kg/cm ²			6 kg/cm ²			7 kg/cm ²			8 kg/cm ²			9 kg/cm ²			10 kg/cm ²			11 kg/cm ²			12 kg/cm ²			13 kg/cm ²			14 kg/cm ²					
X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z
0.29	7.45	0.00	0.63	7.39	0.00	0.98	7.32	0.00	1.34	7.24	0.00	1.72	7.15	0.00	2.10	7.05	0.00	2.49	6.94	0.00	2.92	6.81	0.00	3.37	6.66	0.00	3.84	6.49	0.00	4.33	6.30	0.00	4.92	6.05	0.00	5.60	5.73	0.00	6.57	5.22	0.00			
12.41	0.18	0.00	12.27	0.36	0.00	12.12	0.55	0.00	11.95	0.75	0.00	11.77	0.96	0.00	11.6	1.17	0.00	11.38	1.40	0.00	3.84	6.49	0.00	10.92	1.89	0.00	10.64	2.17	0.00	10.31	2.48	0.00	9.93	2.83	0.00	9.42	3.26	0.00	8.63	3.88	0.00			
0.35	7.44	1.00	0.73	7.37	1.00	1.12	7.29	1.00	1.52	7.20	1.00	1.95	7.09	1.00	2.39	6.97	1.00	2.82	6.84	1.00	11.18	1.64	0.00	3.84	6.49	1.00	4.40	6.27	1.00	5.05	5.99	1.00	5.88	5.59	1.00	7.67	4.55	1.00						
12.39	0.20	1.00	12.24	0.40	1.00	12.06	0.62	1.00	11.87	0.84	1.00	11.68	1.07	1.00	11.45	1.32	1.00	11.21	1.58	1.00	3.31	6.68	1.00	10.64	2.17	1.00	10.28	2.51	1.00	9.82	2.92	1.00	9.22	3.43	1.00									
0.41	7.43	2.00	0.83	7.35	2.00	1.26	7.26	2.00	1.72	7.15	2.00	2.21	7.02	2.00	2.73	6.87	2.00	3.25	6.70	2.00	10.95	1.86	1.00	4.48	6.24	2.00	5.25	5.90	2.00	6.28	5.38	2.00	7.64	4.57	2.00									
12.37	0.23	2.00	12.19	0.46	2.00	11.99	0.70	2.00	11.77	0.96	2.00	11.53	1.23	2.00	11.28	1.51	2.00	10.98	1.82	2.00	10.64	2.17	2.00	10.23	2.56	2.00	9.70	3.03	2.00	8.88	3.69	2.00												
0.46	7.42	3.00	0.93	7.33	3.00	1.47	7.21	3.00	1.99	7.08	3.00	2.56	6.92	3.00	3.16	6.73	3.00	3.84	6.49	3.00	4.57	6.20	3.00	5.48	5.79	3.00	7.07	4.93	3.00															
12.35	0.26	3.00	12.14	0.52	3.00	11.90	0.81	3.00	11.63	1.12	3.00	11.35	1.43	3.00	11.02	1.78	3.00	10.64	2.17	3.00	10.16	2.62	3.00	9.51	3.19	3.00	8.20	4.19	3.00															
0.52	7.41	4.00	1.12	7.29	4.00	1.72	7.15	4.00	2.39	6.97	4.00	3.07	6.76	4.00	3.84	6.49	4.00	4.71	6.14	4.00	5.88	5.59	4.00																					
12.32	0.30	4.00	12.06	0.62	4.00	11.78	0.95	4.00	11.45	1.32	4.00	11.08	1.72	4.00	10.64	2.17	4.00	10.06	2.71	4.00	9.22	3.43	4.00																					
0.63	7.39	5.00	1.34	7.24	5.00	2.10	7.05	5.00	2.92	6.81	5.00	3.84	6.49	5.00	4.92	6.05	5.00	6.57	5.22	5.00																								
12.27	0.36	5.00	11.45	1.32	5.00	11.59	1.17	5.00	11.16	1.64	5.00	10.64	2.17	5.00	9.93	2.83	5.00	8.53	3.88	5.00																								
0.83	7.35	6.00	11.95	0.75	5.00	2.73	6.87	6.00	3.84	6.49	6.00	5.25	5.90	6.00																														
12.20	0.45	6.00	11.72	1.15	6.00	11.28	1.51	6.00	10.64	2.17	6.00	9.70	3.03	6.00																														
1.12	7.29	7.00	11.77	0.96	6.00	3.84	6.49	7.00	5.88	5.59	7.00																																	
12.06	0.62	7.00	2.39	6.97	7.00	10.64	2.17	7.00	9.22	3.43	7.00																																	
1.72	7.15	8.00	3.84	6.49	8.00																																							
11.77	0.96	8.00	10.64	2.17	8.00																																							
3.84	6.49	9.00																																										
10.64	2.17	9.00																																										

**LINEAS ISOBARICAS
ESFUERZOS CORTANTES**



Conclusión:

La intención del presente trabajo terminal, fue proponer un procedimiento simple para determinar los esfuerzos primordiales a los que esta sujeta una cubierta prismática o cilíndrica.

Empleando el método de la viga, el método de Newmark, y el artificio de transformar a la sección transversal real de la cubierta, en una sección poligonal equivalente, permite determinar los esfuerzos requeridos en una forma laboriosa pero simple. (y cuando se usan hojas de cálculo como "Excel", lo laborioso deja de serlo)

Con la determinación de las líneas isobáricas o de igual de esfuerzo, podemos visualizar como trabaja la cubierta, cuando se sujeta a un sistema de cargas.

Lo que a priori se nos antoja complicado, se logró trabajando con la teoría de la flexión, usando solo las cuatro operaciones aritméticas, aplicadas en sistemas simples de integración numérica.

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