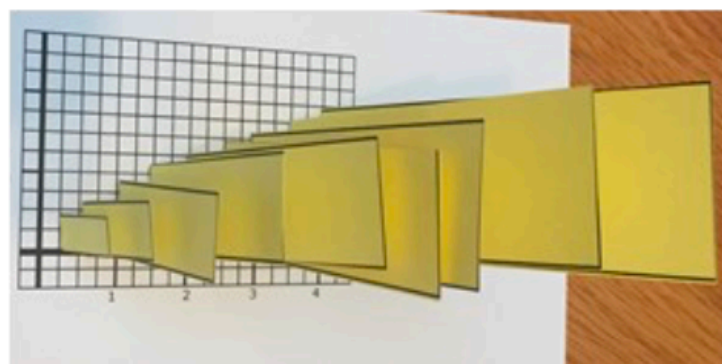
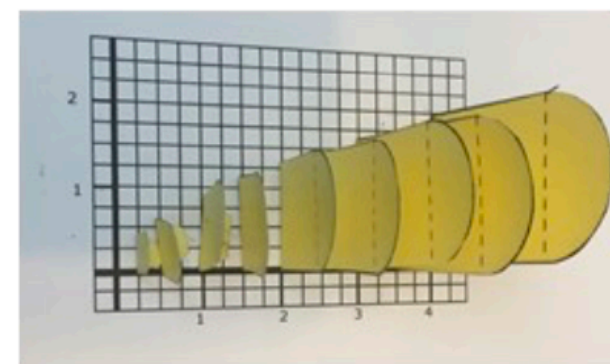
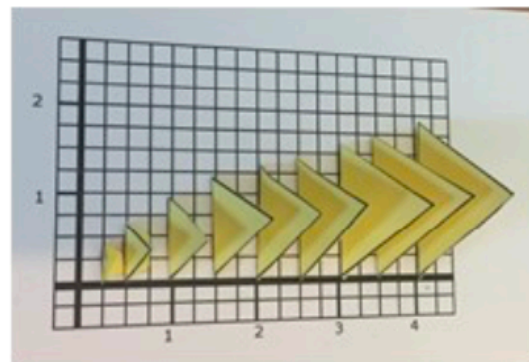
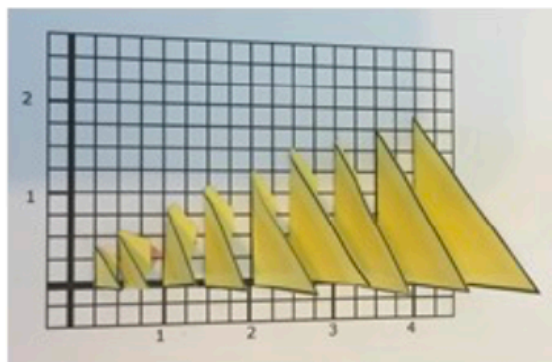
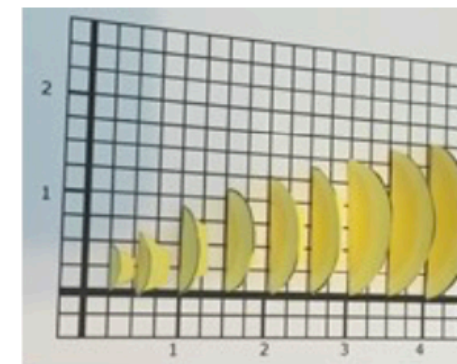
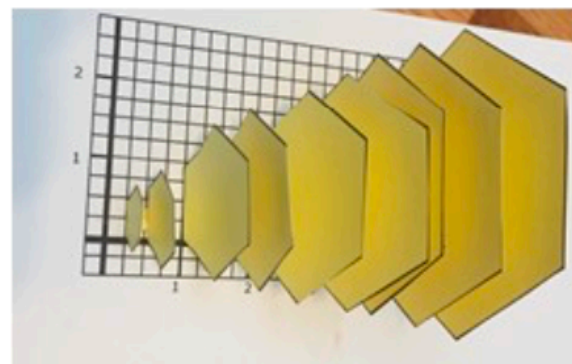
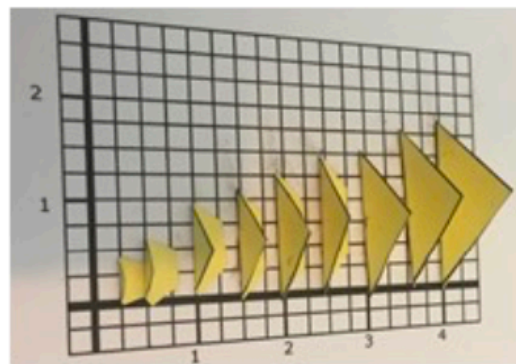
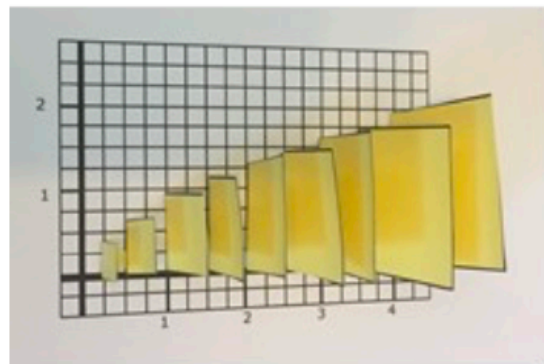
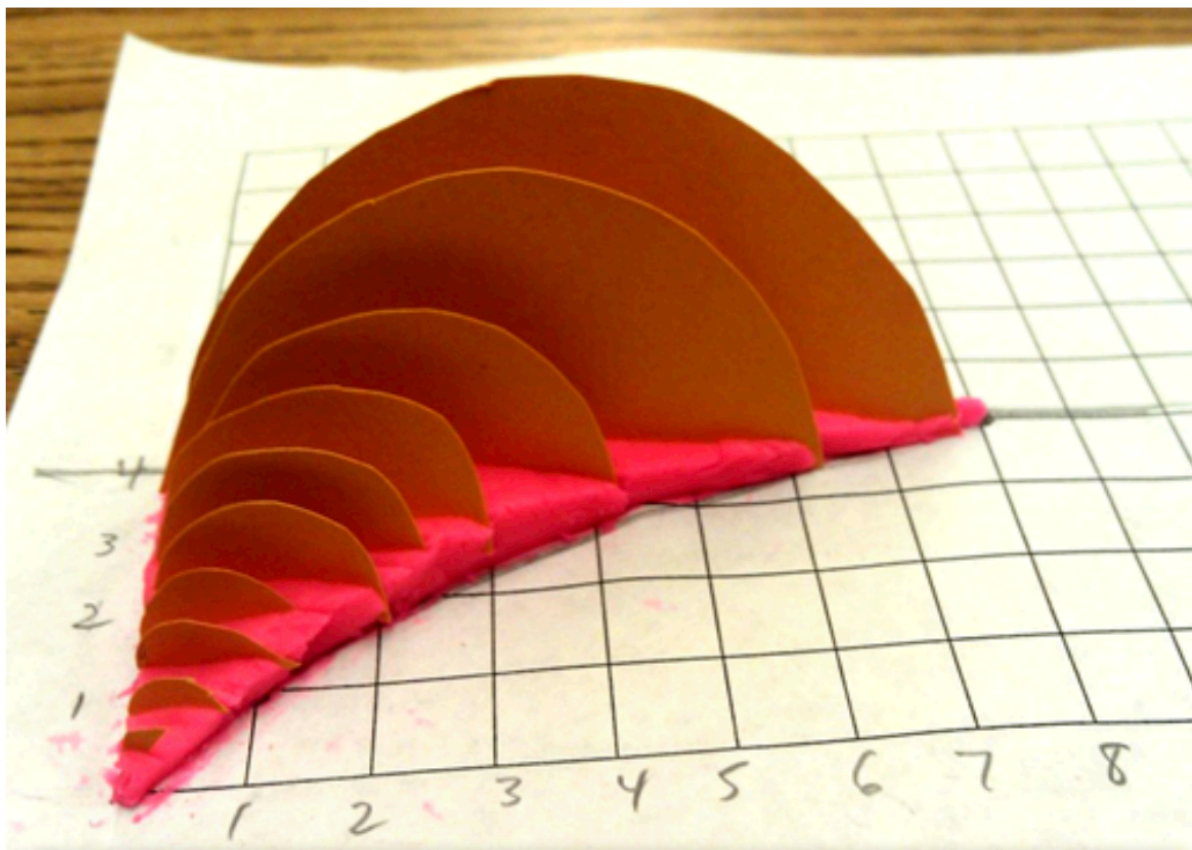


Solids of Known Cross Sections



3D PROJECT

EXAMPLES

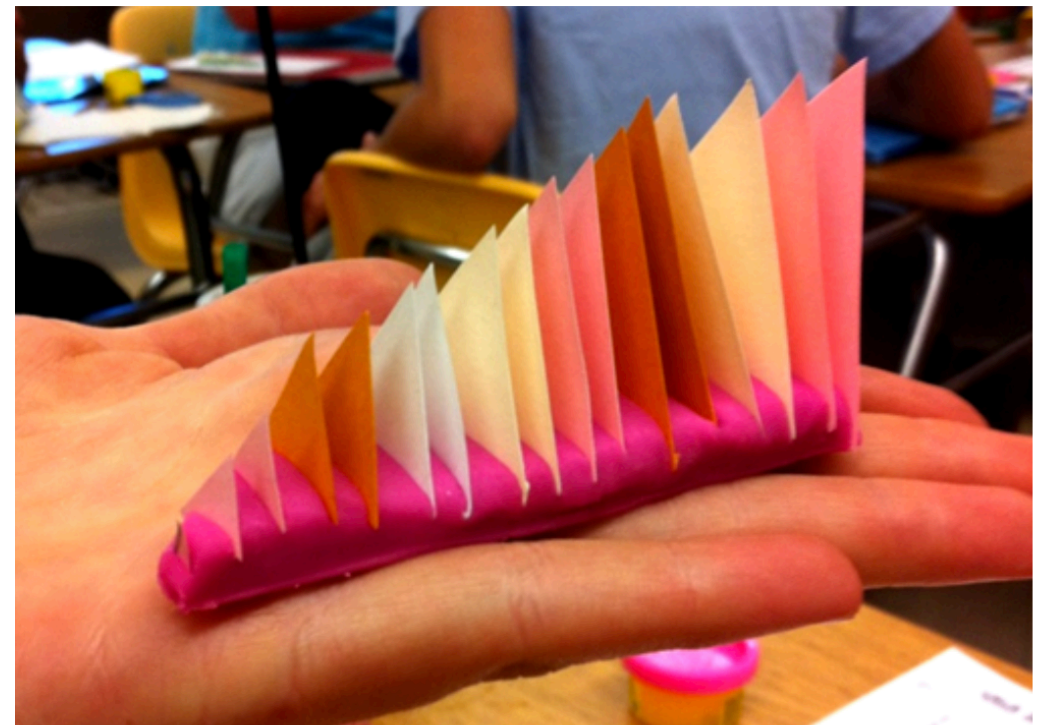


R , the base of the solid, is the region bounded by the graphs of...

$$y = x^{2/3}, x = 0, \text{ and } y = 4$$

Cross-sections perpendicular to the y -axis are semicircles with their diameter in R

Create your solid using Play-Doh and paper.
Calculate its volume (Calculator okay).



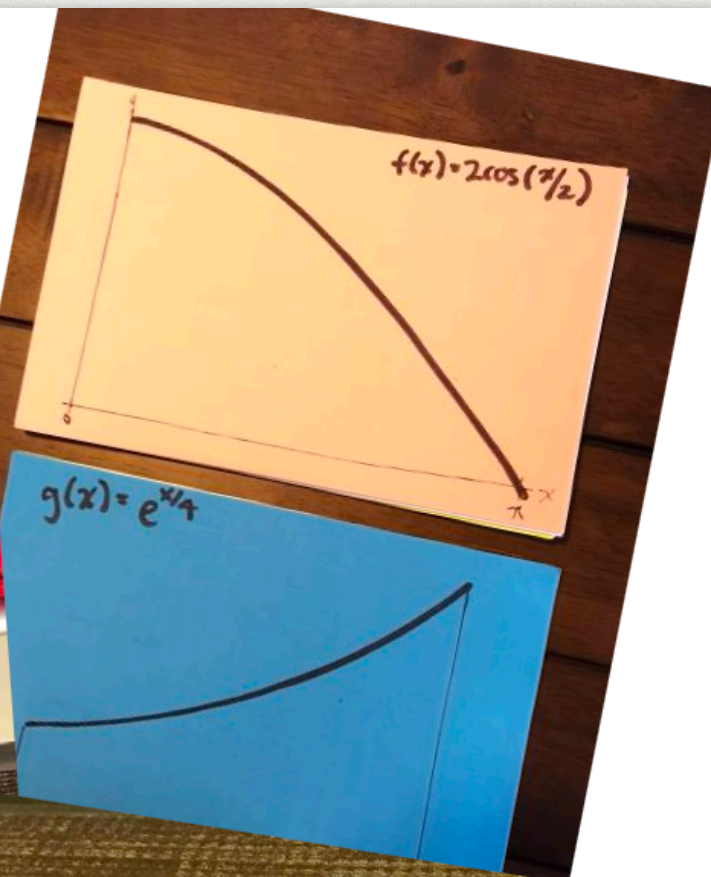
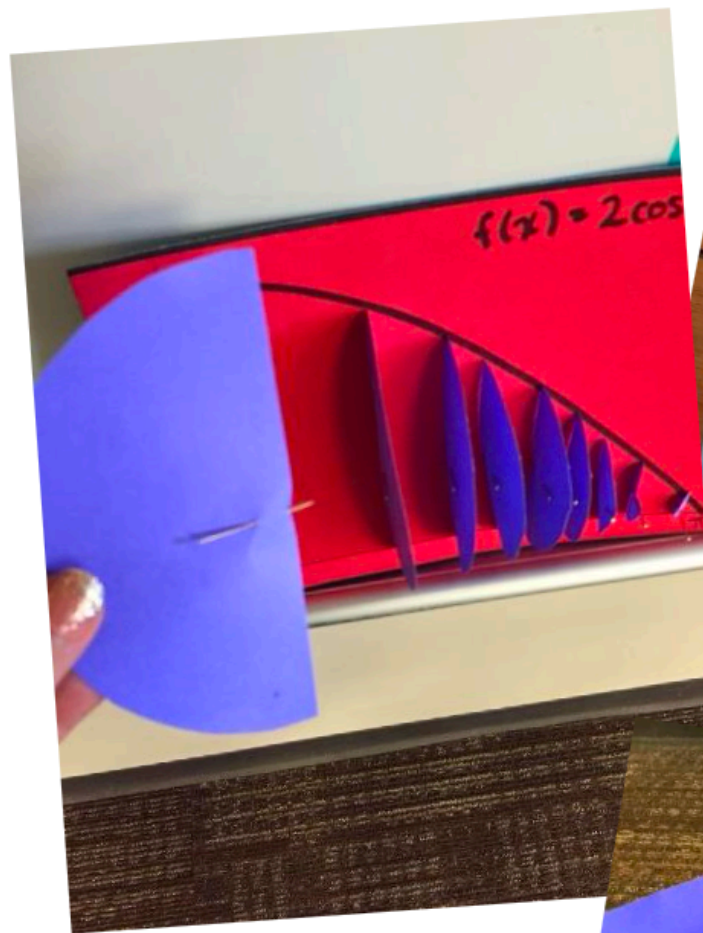
March 2012

R , the base of the solid, is the region bounded by the graphs of...

$$y = x^{2/3}, y = 0, \text{ and } x = 8$$

Cross-sections perpendicular to the x -axis are equilateral triangles with their base in R

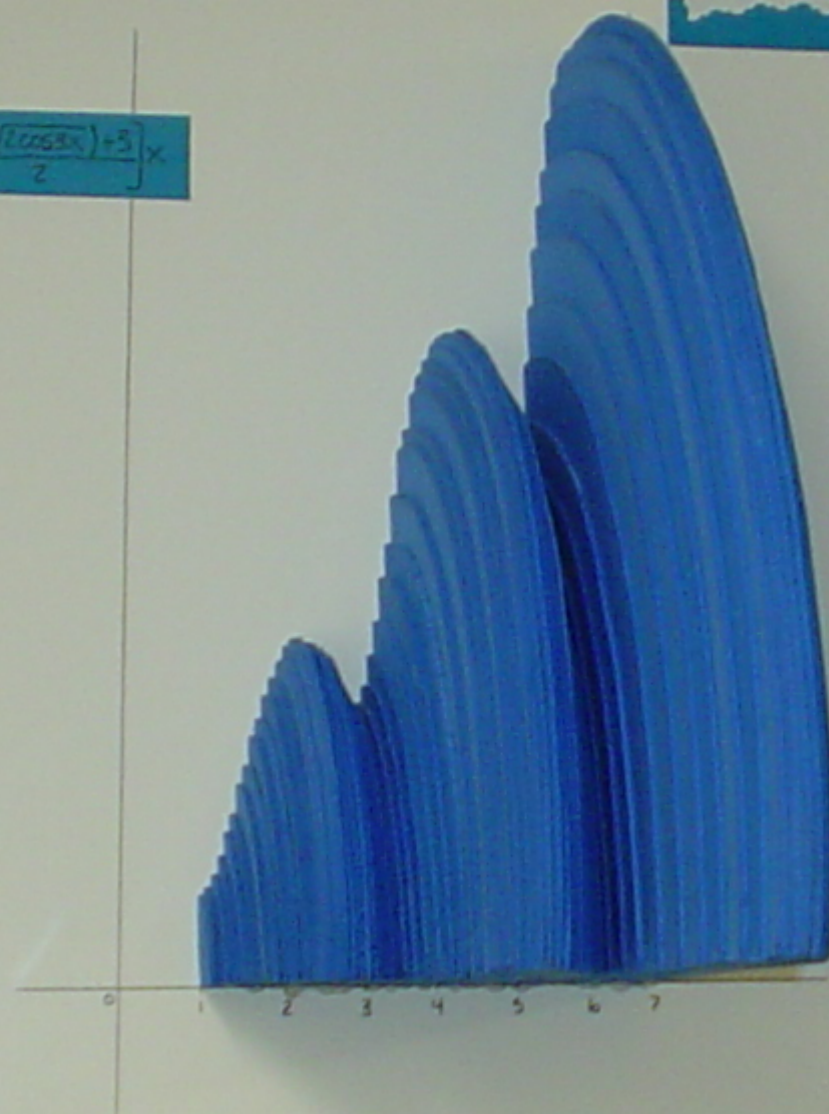
Create your solid using Play-Doh and paper.
Calculate its volume (Calculator okay).



| Cross Sections | $f(x) = 2\cos(x/2)$ | $g(x) = e^{x/4}$ |
|---------------------------------|--|---|
| Semi-Circles | $\frac{\pi}{8} \int_0^{\pi} (2\cos \frac{x}{2})^2 dx = 12.467$ | $\frac{\pi}{8} \int_0^6 (e^{x/4})^2 dx = 14.910$ |
| Squares | $\int_0^{\pi} (f(x))^2 dx = 6.283$ | $\int_0^6 (g(x))^2 dx = 38.171$ |
| Rectangles (height=1/2 base) | $\frac{1}{2} \int_0^{\pi} f(x)^2 dx = \pi$ | $\frac{1}{2} \int_0^6 (g(x))^2 dx \approx 19.085$ |
| Isosceles Right | $\frac{1}{2} \int_0^{\pi} (f(x))^2 dx = 1.5708$ | $\frac{1}{2} \int_0^6 (e^{x/4})^2 dx = 19.085$ |

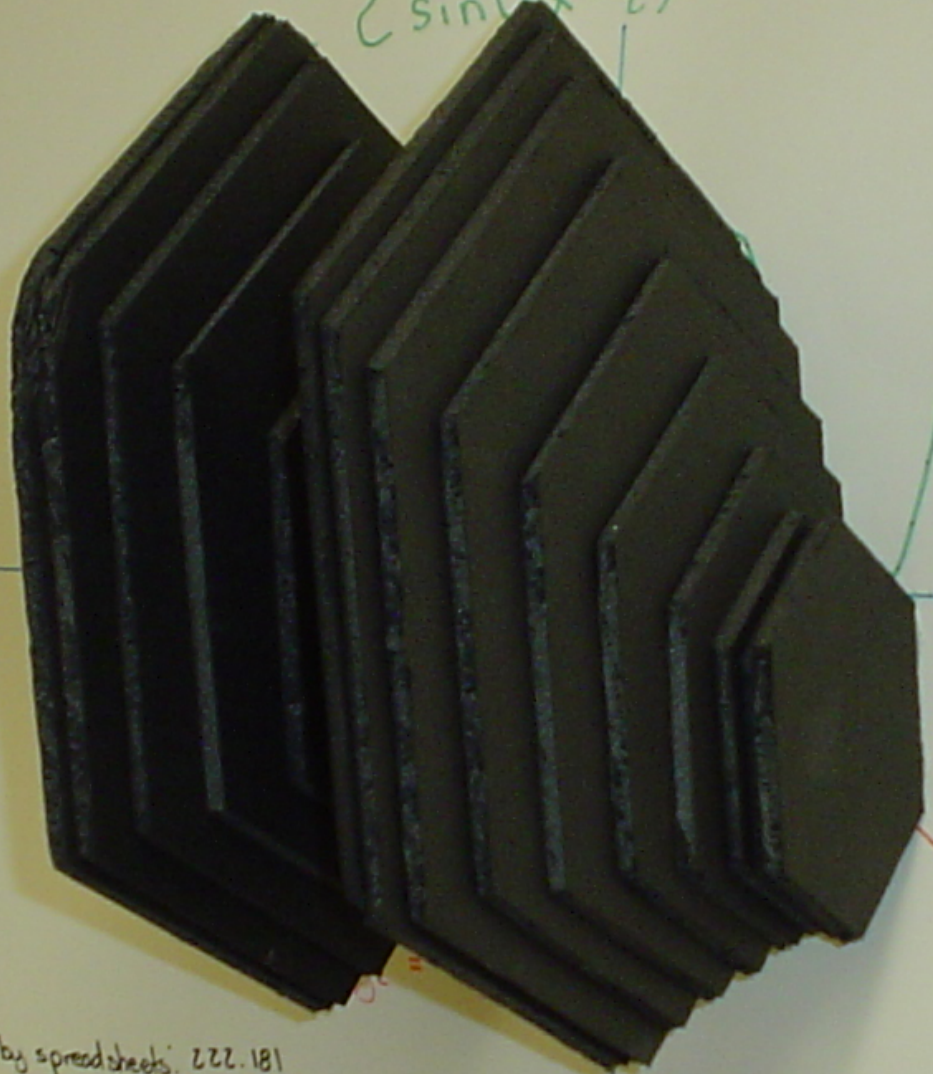
THE WAVE

$$\text{Equation: } \left[\frac{2(3\sqrt{2}\cos x)}{2} + 3 \right] \times$$



| X-Coordinate | Height | Volume | X-Coordinate | Height | Volume |
|--------------|--------|--------|--------------|--------|---------|
| 0.0000 | 3.0000 | 0.0000 | 3.1416 | 3.0000 | 3.1416 |
| 0.1571 | 3.0000 | 0.0000 | 3.2987 | 3.0000 | 3.2987 |
| 0.3142 | 3.0000 | 0.0000 | 3.4563 | 3.0000 | 3.4563 |
| 0.4713 | 3.0000 | 0.0000 | 3.6139 | 3.0000 | 3.6139 |
| 0.6284 | 3.0000 | 0.0000 | 3.7715 | 3.0000 | 3.7715 |
| 0.7854 | 3.0000 | 0.0000 | 3.9291 | 3.0000 | 3.9291 |
| 0.9425 | 3.0000 | 0.0000 | 4.0867 | 3.0000 | 4.0867 |
| 1.0996 | 3.0000 | 0.0000 | 4.2443 | 3.0000 | 4.2443 |
| 1.2566 | 3.0000 | 0.0000 | 4.4019 | 3.0000 | 4.4019 |
| 1.4137 | 3.0000 | 0.0000 | 4.5595 | 3.0000 | 4.5595 |
| 1.5708 | 3.0000 | 0.0000 | 4.7171 | 3.0000 | 4.7171 |
| 1.7278 | 3.0000 | 0.0000 | 4.8747 | 3.0000 | 4.8747 |
| 1.8849 | 3.0000 | 0.0000 | 5.0323 | 3.0000 | 5.0323 |
| 2.0419 | 3.0000 | 0.0000 | 5.1899 | 3.0000 | 5.1899 |
| 2.1990 | 3.0000 | 0.0000 | 5.3475 | 3.0000 | 5.3475 |
| 2.3560 | 3.0000 | 0.0000 | 5.5051 | 3.0000 | 5.5051 |
| 2.5131 | 3.0000 | 0.0000 | 5.6627 | 3.0000 | 5.6627 |
| 2.6701 | 3.0000 | 0.0000 | 5.8203 | 3.0000 | 5.8203 |
| 2.8272 | 3.0000 | 0.0000 | 5.9779 | 3.0000 | 5.9779 |
| 2.9842 | 3.0000 | 0.0000 | 6.1355 | 3.0000 | 6.1355 |
| 3.1416 | 3.0000 | 0.0000 | 6.2931 | 3.0000 | 6.2931 |
| 3.2987 | 3.0000 | 0.0000 | 6.4507 | 3.0000 | 6.4507 |
| 3.4563 | 3.0000 | 0.0000 | 6.6083 | 3.0000 | 6.6083 |
| 3.6139 | 3.0000 | 0.0000 | 6.7659 | 3.0000 | 6.7659 |
| 3.7715 | 3.0000 | 0.0000 | 6.9235 | 3.0000 | 6.9235 |
| 3.9291 | 3.0000 | 0.0000 | 7.0811 | 3.0000 | 7.0811 |
| 4.0867 | 3.0000 | 0.0000 | 7.2387 | 3.0000 | 7.2387 |
| 4.2443 | 3.0000 | 0.0000 | 7.3963 | 3.0000 | 7.3963 |
| 4.4019 | 3.0000 | 0.0000 | 7.5539 | 3.0000 | 7.5539 |
| 4.5595 | 3.0000 | 0.0000 | 7.7115 | 3.0000 | 7.7115 |
| 4.7171 | 3.0000 | 0.0000 | 7.8691 | 3.0000 | 7.8691 |
| 4.8747 | 3.0000 | 0.0000 | 8.0267 | 3.0000 | 8.0267 |
| 5.0323 | 3.0000 | 0.0000 | 8.1843 | 3.0000 | 8.1843 |
| 5.1899 | 3.0000 | 0.0000 | 8.3419 | 3.0000 | 8.3419 |
| 5.3475 | 3.0000 | 0.0000 | 8.4995 | 3.0000 | 8.4995 |
| 5.5051 | 3.0000 | 0.0000 | 8.6571 | 3.0000 | 8.6571 |
| 5.6627 | 3.0000 | 0.0000 | 8.8147 | 3.0000 | 8.8147 |
| 5.8203 | 3.0000 | 0.0000 | 8.9723 | 3.0000 | 8.9723 |
| 5.9779 | 3.0000 | 0.0000 | 9.1299 | 3.0000 | 9.1299 |
| 6.1355 | 3.0000 | 0.0000 | 9.2875 | 3.0000 | 9.2875 |
| 6.2931 | 3.0000 | 0.0000 | 9.4451 | 3.0000 | 9.4451 |
| 6.4507 | 3.0000 | 0.0000 | 9.6027 | 3.0000 | 9.6027 |
| 6.6083 | 3.0000 | 0.0000 | 9.7603 | 3.0000 | 9.7603 |
| 6.7659 | 3.0000 | 0.0000 | 9.9179 | 3.0000 | 9.9179 |
| 6.9235 | 3.0000 | 0.0000 | 10.0755 | 3.0000 | 10.0755 |
| 7.0811 | 3.0000 | 0.0000 | 10.2331 | 3.0000 | 10.2331 |
| 7.2387 | 3.0000 | 0.0000 | 10.3907 | 3.0000 | 10.3907 |
| 7.3963 | 3.0000 | 0.0000 | 10.5483 | 3.0000 | 10.5483 |
| 7.5539 | 3.0000 | 0.0000 | 10.7059 | 3.0000 | 10.7059 |
| 7.7115 | 3.0000 | 0.0000 | 10.8635 | 3.0000 | 10.8635 |
| 7.8691 | 3.0000 | 0.0000 | 11.0211 | 3.0000 | 11.0211 |
| 8.0267 | 3.0000 | 0.0000 | 11.1787 | 3.0000 | 11.1787 |
| 8.1843 | 3.0000 | 0.0000 | 11.3363 | 3.0000 | 11.3363 |
| 8.3419 | 3.0000 | 0.0000 | 11.4939 | 3.0000 | 11.4939 |
| 8.4995 | 3.0000 | 0.0000 | 11.6515 | 3.0000 | 11.6515 |
| 8.6571 | 3.0000 | 0.0000 | 11.8091 | 3.0000 | 11.8091 |
| 8.8147 | 3.0000 | 0.0000 | 11.9667 | 3.0000 | 11.9667 |
| 8.9723 | 3.0000 | 0.0000 | 12.1243 | 3.0000 | 12.1243 |
| 9.1299 | 3.0000 | 0.0000 | 12.2819 | 3.0000 | 12.2819 |
| 9.2875 | 3.0000 | 0.0000 | 12.4395 | 3.0000 | 12.4395 |
| 9.4451 | 3.0000 | 0.0000 | 12.5971 | 3.0000 | 12.5971 |
| 9.6027 | 3.0000 | 0.0000 | 12.7547 | 3.0000 | 12.7547 |
| 9.7603 | 3.0000 | 0.0000 | 12.9123 | 3.0000 | 12.9123 |
| 9.9179 | 3.0000 | 0.0000 | 13.0699 | 3.0000 | 13.0699 |
| 10.0755 | 3.0000 | 0.0000 | 13.2275 | 3.0000 | 13.2275 |
| 10.2331 | 3.0000 | 0.0000 | 13.3851 | 3.0000 | 13.3851 |
| 10.3907 | 3.0000 | 0.0000 | 13.5427 | 3.0000 | 13.5427 |
| 10.5483 | 3.0000 | 0.0000 | 13.7003 | 3.0000 | 13.7003 |
| 10.7059 | 3.0000 | 0.0000 | 13.8579 | 3.0000 | 13.8579 |
| 10.8635 | 3.0000 | 0.0000 | 14.0155 | 3.0000 | 14.0155 |
| 11.0211 | 3.0000 | 0.0000 | 14.1731 | 3.0000 | 14.1731 |
| 11.1787 | 3.0000 | 0.0000 | 14.3307 | 3.0000 | 14.3307 |
| 11.3363 | 3.0000 | 0.0000 | 14.4883 | 3.0000 | 14.4883 |
| 11.4939 | 3.0000 | 0.0000 | 14.6459 | 3.0000 | 14.6459 |
| 11.6515 | 3.0000 | 0.0000 | 14.8035 | 3.0000 | 14.8035 |
| 11.8091 | 3.0000 | 0.0000 | 14.9611 | 3.0000 | 14.9611 |
| 11.9667 | 3.0000 | 0.0000 | 15.1187 | 3.0000 | 15.1187 |
| 12.1243 | 3.0000 | 0.0000 | 15.2763 | 3.0000 | 15.2763 |
| 12.2819 | 3.0000 | 0.0000 | 15.4339 | 3.0000 | 15.4339 |
| 12.4395 | 3.0000 | 0.0000 | 15.5915 | 3.0000 | 15.5915 |
| 12.5971 | 3.0000 | 0.0000 | 15.7491 | 3.0000 | 15.7491 |
| 12.7547 | 3.0000 | 0.0000 | 15.9067 | 3.0000 | 15.9067 |
| 12.9123 | 3.0000 | 0.0000 | 16.0643 | 3.0000 | 16.0643 |
| 13.0699 | 3.0000 | 0.0000 | 16.2219 | 3.0000 | 16.2219 |
| 13.2275 | 3.0000 | 0.0000 | 16.3795 | 3.0000 | 16.3795 |
| 13.3851 | 3.0000 | 0.0000 | 16.5371 | 3.0000 | 16.5371 |
| 13.5427 | 3.0000 | 0.0000 | 16.6947 | 3.0000 | 16.6947 |
| 13.7003 | 3.0000 | 0.0000 | 16.8523 | 3.0000 | 16.8523 |
| 13.8579 | 3.0000 | 0.0000 | 17.0099 | 3.0000 | 17.0099 |
| 14.0155 | 3.0000 | 0.0000 | 17.1675 | 3.0000 | 17.1675 |
| 14.1731 | 3.0000 | 0.0000 | 17.3251 | 3.0000 | 17.3251 |
| 14.3307 | 3.0000 | 0.0000 | 17.4827 | 3.0000 | 17.4827 |
| 14.4883 | 3.0000 | 0.0000 | 17.6403 | 3.0000 | 17.6403 |
| 14.6459 | 3.0000 | 0.0000 | 17.7979 | 3.0000 | 17.7979 |
| 14.8035 | 3.0000 | 0.0000 | 17.9555 | 3.0000 | 17.9555 |
| 14.9611 | 3.0000 | 0.0000 | 18.1131 | 3.0000 | 18.1131 |
| 15.1187 | 3.0000 | 0.0000 | 18.2707 | 3.0000 | 18.2707 |
| 15.2763 | 3.0000 | 0.0000 | 18.4283 | 3.0000 | 18.4283 |
| 15.4339 | 3.0000 | 0.0000 | 18.5859 | 3.0000 | 18.5859 |
| 15.5915 | 3.0000 | 0.0000 | 18.7435 | 3.0000 | 18.7435 |
| 15.7491 | 3.0000 | 0.0000 | 18.9011 | 3.0000 | 18.9011 |
| 15.9067 | 3.0000 | 0.0000 | 19.0587 | 3.0000 | 19.0587 |
| 16.0643 | 3.0000 | 0.0000 | 19.2163 | 3.0000 | 19.2163 |
| 16.2219 | 3.0000 | 0.0000 | 19.3739 | 3.0000 | 19.3739 |
| 16.3795 | 3.0000 | 0.0000 | 19.5315 | 3.0000 | 19.5315 |
| 16.5371 | 3.0000 | 0.0000 | 19.6891 | 3.0000 | 19.6891 |
| 16.6947 | 3.0000 | 0.0000 | 19.8467 | 3.0000 | 19.8467 |
| 16.8523 | 3.0000 | 0.0000 | 20.0043 | 3.0000 | 20.0043 |
| 17.0099 | 3.0000 | 0.0000 | 20.1619 | 3.0000 | 20.1619 |
| 17.1675 | 3.0000 | 0.0000 | 20.3195 | 3.0000 | 20.3195 |
| 17.3251 | 3.0000 | 0.0000 | 20.4771 | 3.0000 | 20.4771 |
| 17.4827 | 3.0000 | 0.0000 | 20.6347 | 3.0000 | 20.6347 |
| 17.6403 | 3.0000 | 0.0000 | 20.7923 | 3.0000 | 20.7923 |
| 17.7979 | 3.0000 | 0.0000 | 20.9499 | 3.0000 | 20.9499 |
| 17.9555 | 3.0000 | 0.0000 | 21.1075 | 3.0000 | 21.1075 |
| 18.1131 | 3.0000 | 0.0000 | 21.2651 | 3.0000 | 21.2651 |
| 18.2707 | 3.0000 | 0.0000 | 21.4227 | 3.0000 | 21.4227 |
| 18.4283 | 3.0000 | 0.0000 | 21.5803 | 3.0000 | 21.5803 |
| 18.5859 | 3.0000 | 0.0000 | 21.7379 | 3.0000 | 21.7379 |
| 18.7435 | 3.0000 | 0.0000 | 21.8955 | 3.0000 | 21.8955 |
| 18.9011 | 3.0000 | 0.0000 | 22.0531 | 3.0000 | 22.0531 |
| 19.0587 | 3.0000 | 0.0000 | 22.2107 | 3.0000 | 22.2107 |
| 19.2163 | 3.0000 | 0.0000 | 22.3683 | 3.0000 | 22.3683 |
| 19.3739 | 3.0000 | 0.0000 | 22.5259 | 3.0000 | 22.5259 |
| 19.5315 | 3.0000 | 0.0000 | 22.6835 | 3.0000 | 22.6835 |
| 19.6891 | 3.0000 | 0.0000 | 22.8411 | 3.0000 | 22.8411 |
| 19.8467 | 3.0000 | 0.0000 | 22.9987 | 3.0000 | 22.9987 |
| 20.0043 | 3.0000 | 0.0000 | 23.1563 | 3.0000 | 23.1563 |
| 20.1619 | 3.0000 | 0.0000 | 23.3139 | 3.0000 | 23.3139 |
| 20.3195 | 3.0000 | 0.0000 | 23.4715 | 3.0000 | 23.4715 |
| 20.4771 | 3.0000 | 0.0000 | 23.6291 | 3.0000 | 23.6291 |
| 20.6347 | 3.0000 | 0.0000 | 23.7867 | 3.0000 | 23.7867 |
| 20.7923 | 3.0000 | 0.0000 | 23.9443 | 3.0000 | 23.9443 |
| 20.9499 | 3.0000 | 0.0000 | 24.1019 | 3.0000 | 24.1019 |
| 21.1075 | 3.0000 | 0.0000 | 24.2595 | 3.0000 | 24.2595 |
| 21.2651 | 3.0000 | 0.0000 | 24.4171 | 3.0000 | 24.4171 |
| 21.4227 | 3.0000 | 0.0000 | 24.5747 | 3.0000 | 24.5747 |
| 21.5803 | 3.0000 | 0.0000 | 24.7323 | 3.0000 | 24.7323 |
| 21.7379 | 3.0000 | 0.0000 | 24.8899 | 3.0000 | 24.8899 |
| 21.8955 | 3.0000 | 0.0000 | 25.0475 | 3.0000 | 25.0475 |
| 22.0531 | 3.0000 | 0.0000 | 25.2051 | 3.0000 | 25.2051 |
| 22.2107 | 3.0000 | 0.0000 | 25.3627 | 3.0000 | 25.3627 |
| 22.3683 | 3.0000 | 0.0000 | 25.5203 | 3.0000 | 25.5203 |
| 22.5259 | 3.0000 | 0.0000 | 25.6779 | 3.0000 | 25.6779 |
| 22.6835 | 3.0000 | 0.0000 | 25.8355 | 3.0000 | 25.8355 |
| 22.8411 | 3.0000 | 0.0000 | 25.9931 | 3.0000 | 25.9931 |
| 22.9987 | 3.0000 | 0.0000 | 26.1507 | 3.0000 | 26.1507 |
| 23.1563 | 3.0000 | 0.0000 | 26.3083 | 3.0000 | 26.3083 |
| 23.3139 | 3.0000 | 0.0000 | 26.4659 | 3.0000 | 26.4659 |
| 23.4715 | 3.0000 | 0.0000 | 26.6235 | 3.0000 | 26.6235 |
| 23.6291 | 3.0000 | 0.0000 | 26.7811 | 3.0000 | 26.7811 |
| 23.7867 | 3.0000 | 0.0000 | 26.9387 | 3.0000 | 26.9387 |
| 23.9443 | 3.0000 | 0.0000 | 27.0963 | 3.0000 | 27.0963 |
| 24.1019 | 3.0000 | 0.0000 | 27.2539 | 3.0000 | 27.2539 |
| 24.2595 | 3.0000 | 0.0000 | 27.4115 | 3.0000 | 27.4115 |
| 24.4171 | 3.0000 | 0.0000 | 27.5691 | 3.0000 | 27.5691 |
| 24.5747 | 3.0000 | 0.0000 | 27.7267 | 3.0000 | 27.7267 |
| 24.7323 | 3.0000 | 0.0000 | 27.8843 | 3.0000 | 27.8843 |
| 24.8899 | 3.0000 | 0.0000 | 28.0419 | 3.0000 | 28.0419 |
| 25.0475 | 3.0000 | 0.0000 | 28.1995 | 3.0000 | 28.1995 |
| 25.2051 | 3.0000 | 0.0000 | 28.3571 | 3.0000 | 28.3571 |
| 25.3627 | 3.0000 | 0.0000 | 28.5147 | 3.0000 | 28.5147 |
| 25.5203 | 3.0000 | 0.0000 | 28.6723 | 3.0000 | 28.6723 |
| 25.6779 | 3.0000 | 0.0000 | 28.8299 | 3.0000 | 28.8299 |
| 25.8355 | 3.0000 | 0.0000 | 28.9875 | 3.0000 | 28.9875 |
| 25.9931 | 3.00 | | | | |

$$2 \sin(2x - \frac{\pi}{2}) + 2$$



Volume by spreadsheets: 222.181

Volume by integral: 221.976



$$s \cdot \theta = s$$

$$A = \frac{3\sqrt{3}}{2} s^2$$

$$V = \frac{1}{2} (2\sqrt{3} s^2)$$

| x: coordinate | length of sides (y - y ₀) dx | area of slice (2d) | volume of slice (3d) | y ₁ coordinate | y ₂ coordinate |
|---------------|--|--------------------|----------------------|---------------------------|---------------------------|
| 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 |
| 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 |
| 0.015 | 0.015 | 0.015 | 0.015 | 0.015 | 0.015 |
| 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 |
| 0.025 | 0.025 | 0.025 | 0.025 | 0.025 | 0.025 |
| 0.030 | 0.030 | 0.030 | 0.030 | 0.030 | 0.030 |
| 0.035 | 0.035 | 0.035 | 0.035 | 0.035 | 0.035 |
| 0.040 | 0.040 | 0.040 | 0.040 | 0.040 | 0.040 |
| 0.045 | 0.045 | 0.045 | 0.045 | 0.045 | 0.045 |
| 0.050 | 0.050 | 0.050 | 0.050 | 0.050 | 0.050 |
| 0.055 | 0.055 | 0.055 | 0.055 | 0.055 | 0.055 |
| 0.060 | 0.060 | 0.060 | 0.060 | 0.060 | 0.060 |
| 0.065 | 0.065 | 0.065 | 0.065 | 0.065 | 0.065 |
| 0.070 | 0.070 | 0.070 | 0.070 | 0.070 | 0.070 |
| 0.075 | 0.075 | 0.075 | 0.075 | 0.075 | 0.075 |
| 0.080 | 0.080 | 0.080 | 0.080 | 0.080 | 0.080 |
| 0.085 | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 |
| 0.090 | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 |
| 0.095 | 0.095 | 0.095 | 0.095 | 0.095 | 0.095 |
| 0.100 | 0.100 | 0.100 | 0.100 | 0.100 | 0.100 |
| 0.105 | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 |
| 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 |
| 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 |
| 0.120 | 0.120 | 0.120 | 0.120 | 0.120 | 0.120 |
| 0.125 | 0.125 | 0.125 | 0.125 | 0.125 | 0.125 |
| 0.130 | 0.130 | 0.130 | 0.130 | 0.130 | 0.130 |
| 0.135 | 0.135 | 0.135 | 0.135 | 0.135 | 0.135 |
| 0.140 | 0.140 | 0.140 | 0.140 | 0.140 | 0.140 |
| 0.145 | 0.145 | 0.145 | 0.145 | 0.145 | 0.145 |
| 0.150 | 0.150 | 0.150 | 0.150 | 0.150 | 0.150 |
| 0.155 | 0.155 | 0.155 | 0.155 | 0.155 | 0.155 |
| 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 |
| 0.165 | 0.165 | 0.165 | 0.165 | 0.165 | 0.165 |
| 0.170 | 0.170 | 0.170 | 0.170 | 0.170 | 0.170 |
| 0.175 | 0.175 | 0.175 | 0.175 | 0.175 | 0.175 |
| 0.180 | 0.180 | 0.180 | 0.180 | 0.180 | 0.180 |
| 0.185 | 0.185 | 0.185 | 0.185 | 0.185 | 0.185 |
| 0.190 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 |
| 0.195 | 0.195 | 0.195 | 0.195 | 0.195 | 0.195 |
| 0.200 | 0.200 | 0.200 | 0.200 | 0.200 | 0.200 |
| 0.205 | 0.205 | 0.205 | 0.205 | 0.205 | 0.205 |
| 0.210 | 0.210 | 0.210 | 0.210 | 0.210 | 0.210 |
| 0.215 | 0.215 | 0.215 | 0.215 | 0.215 | 0.215 |
| 0.220 | 0.220 | 0.220 | 0.220 | 0.220 | 0.220 |
| 0.225 | 0.225 | 0.225 | 0.225 | 0.225 | 0.225 |
| 0.230 | 0.230 | 0.230 | 0.230 | 0.230 | 0.230 |
| 0.235 | 0.235 | 0.235 | 0.235 | 0.235 | 0.235 |
| 0.240 | 0.240 | 0.240 | 0.240 | 0.240 | 0.240 |
| 0.245 | 0.245 | 0.245 | 0.245 | 0.245 | 0.245 |
| 0.250 | 0.250 | 0.250 | 0.250 | 0.250 | 0.250 |
| 0.255 | 0.255 | 0.255 | 0.255 | 0.255 | 0.255 |
| 0.260 | 0.260 | 0.260 | 0.260 | 0.260 | 0.260 |
| 0.265 | 0.265 | 0.265 | 0.265 | 0.265 | 0.265 |
| 0.270 | 0.270 | 0.270 | 0.270 | 0.270 | 0.270 |
| 0.275 | 0.275 | 0.275 | 0.275 | 0.275 | 0.275 |
| 0.280 | 0.280 | 0.280 | 0.280 | 0.280 | 0.280 |
| 0.285 | 0.285 | 0.285 | 0.285 | 0.285 | 0.285 |
| 0.290 | 0.290 | 0.290 | 0.290 | 0.290 | 0.290 |
| 0.295 | 0.295 | 0.295 | 0.295 | 0.295 | 0.295 |
| 0.300 | 0.300 | 0.300 | 0.300 | 0.300 | 0.300 |
| 0.305 | 0.305 | 0.305 | 0.305 | 0.305 | 0.305 |
| 0.310 | 0.310 | 0.310 | 0.310 | 0.310 | 0.310 |
| 0.315 | 0.315 | 0.315 | 0.315 | 0.315 | 0.315 |
| 0.320 | 0.320 | 0.320 | 0.320 | 0.320 | 0.320 |
| 0.325 | 0.325 | 0.325 | 0.325 | 0.325 | 0.325 |
| 0.330 | 0.330 | 0.330 | 0.330 | 0.330 | 0.330 |
| 0.335 | 0.335 | 0.335 | 0.335 | 0.335 | 0.335 |
| 0.340 | 0.340 | 0.340 | 0.340 | 0.340 | 0.340 |
| 0.345 | 0.345 | 0.345 | 0.345 | 0.345 | 0.345 |
| 0.350 | 0.350 | 0.350 | 0.350 | 0.350 | 0.350 |
| 0.355 | 0.355 | 0.355 | 0.355 | 0.355 | 0.355 |
| 0.360 | 0.360 | 0.360 | 0.360 | 0.360 | 0.360 |
| 0.365 | 0.365 | 0.365 | 0.365 | 0.365 | 0.365 |
| 0.370 | 0.370 | 0.370 | 0.370 | 0.370 | 0.370 |
| 0.375 | 0.375 | 0.375 | 0.375 | 0.375 | 0.375 |
| 0.380 | 0.380 | 0.380 | 0.380 | 0.380 | 0.380 |
| 0.385 | 0.385 | 0.385 | 0.385 | 0.385 | 0.385 |
| 0.390 | 0.390 | 0.390 | 0.390 | 0.390 | 0.390 |
| 0.395 | 0.395 | 0.395 | 0.395 | 0.395 | 0.395 |
| 0.400 | 0.400 | 0.400 | 0.400 | 0.400 | 0.400 |
| 0.405 | 0.405 | 0.405 | 0.405 | 0.405 | 0.405 |
| 0.410 | 0.410 | 0.410 | 0.410 | 0.410 | 0.410 |
| 0.415 | 0.415 | 0.415 | 0.415 | 0.415 | 0.415 |
| 0.420 | 0.420 | 0.420 | 0.420 | 0.420 | 0.420 |
| 0.425 | 0.425 | 0.425 | 0.425 | 0.425 | 0.425 |
| 0.430 | 0.430 | 0.430 | 0.430 | 0.430 | 0.430 |
| 0.435 | 0.435 | 0.435 | 0.435 | 0.435 | 0.435 |
| 0.440 | 0.440 | 0.440 | 0.440 | 0.440 | 0.440 |
| 0.445 | 0.445 | 0.445 | 0.445 | 0.445 | 0.445 |
| 0.450 | 0.450 | 0.450 | 0.450 | 0.450 | 0.450 |
| 0.455 | 0.455 | 0.455 | 0.455 | 0.455 | 0.455 |
| 0.460 | 0.460 | 0.460 | 0.460 | 0.460 | 0.460 |
| 0.465 | 0.465 | 0.465 | 0.465 | 0.465 | 0.465 |
| 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 |
| 0.475 | 0.475 | 0.475 | 0.475 | 0.475 | 0.475 |
| 0.480 | 0.480 | 0.480 | 0.480 | 0.480 | 0.480 |
| 0.485 | 0.485 | 0.485 | 0.485 | 0.485 | 0.485 |
| 0.490 | 0.490 | 0.490 | 0.490 | 0.490 | 0.490 |
| 0.495 | 0.495 | 0.495 | 0.495 | 0.495 | 0.495 |
| 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 |

$$y_2 = (.35x)^4 - 4$$

Yoda

Shapes:

Ears

Equilateral Triangles

Face

Theoretical Volume:

Left Ear: $\frac{\sqrt{3}}{4} \int_{-3.760}^{-3.15} (Y_i - Y_j)^2 dx + \frac{\sqrt{3}}{4} \int_{-3.13}^{-2.525} (Y_i - Y_j)^2 dx$

Right Ear: $\frac{\sqrt{3}}{4} \int_{2.525}^{3.14} (Y_1 - Y_2)^2 dx + \frac{\sqrt{3}}{4} \int_{3.15}^{3.760} (Y_1 - Y_2)^2 dx$

Face: $\frac{\pi}{4} \int_{-2.525}^{2.525} (Y_1 - Y_2)^2 dx$

Theoretical Volume: 84.847 in^3



"Learn
the derivative
of Calculus,
you must."

Total
Volume:
 83.423 in^3

| Table 1 | | | |
|---------|----------|----------|------------|
| Year | Male | Female | Unknown |
| 1990 | 0.000778 | 0.000609 | 4.01/1000 |
| 1991 | 1.000215 | 1.217904 | 0.00050000 |
| 1992 | 1.111267 | 1.561732 | 0.00031521 |
| 1993 | 1.000574 | 1.500543 | 0.00122302 |
| 1994 | 1.000615 | 1.000777 | 0.00046250 |
| 1995 | 0.001218 | 0.001203 | 0.00077777 |
| 1996 | 1.000578 | 1.000603 | 0.00050000 |

| RR | Factor | Probability |
|---------|---------|-------------|
| 2.507 | 2.98018 | 0.88113 |
| 3.190 | 2.64546 | 1.191 |
| 5.15 | 2.40583 | 3.70713 |
| | 2.65710 | 2.18517 |
| 1.73 | 3.18075 | 2.58148 |
| 1.58 | 3.43091 | 4.89023 |
| | 3.46829 | 3.12706 |
| 1.213 | 3.73106 | 4.30358 |
| 1.03 | 3.82743 | 5.18464 |
| 0.8378 | 3.85108 | 5.83838 |
| 0.6923 | 3.86102 | 5.95714 |
| 0.6327 | 3.87182 | 6.05966 |
| 0.571 | 3.87913 | 6.15376 |
| 0.5078 | 3.88384 | 6.24024 |
| 0.50875 | 3.88678 | 6.28024 |
| 0.48978 | 3.89058 | 6.31878 |
| 0.46975 | 3.89514 | 6.35527 |
| 0.44975 | 3.8996 | 6.38978 |
| 0.42975 | 3.90428 | 6.42313 |
| 0.40975 | 3.90908 | 6.45527 |
| 0.38975 | 3.91391 | 6.48627 |
| 0.36975 | 3.91878 | 6.51627 |
| 0.34975 | 3.92368 | 6.54527 |
| 0.32975 | 3.92861 | 6.57327 |
| 0.30975 | 3.93357 | 6.60127 |
| 0.28975 | 3.93854 | 6.62827 |
| 0.26975 | 3.94352 | 6.65527 |
| 0.24975 | 3.94851 | 6.68227 |
| 0.22975 | 3.95351 | 6.70927 |
| 0.20975 | 3.95852 | 6.73627 |
| 0.18975 | 3.96354 | 6.76327 |
| 0.16975 | 3.96857 | 6.79027 |
| 0.14975 | 3.97361 | 6.81727 |
| 0.12975 | 3.97866 | 6.84427 |
| 0.10975 | 3.98372 | 6.87127 |
| 0.08975 | 3.98879 | 6.89827 |
| 0.06975 | 3.99387 | 6.92527 |
| 0.04975 | 3.99896 | 6.95227 |
| 0.02975 | 4.00406 | 6.97927 |
| 0.00975 | 4.00917 | 7.00627 |
| 0.00075 | 4.01429 | 7.03327 |
| 0.00000 | 4.01942 | 7.06027 |

| Night Bar | | | |
|-----------|-----------|-----------|-----------|
| Day | Score | Percent | Ranking |
| 1.11.19 | 2,083,717 | 2,260,948 | 2,463,410 |
| 1.12.19 | 2,087,743 | 2,456,743 | 2,762,662 |
| 2.09.19 | 2,513,891 | 2,217,736 | 2,539,951 |
| 1.08.19 | 2,495,104 | 2,033,066 | 2,892,344 |
| 1.12.18 | 1,956,609 | 1,568,177 | 1,136,747 |
| 1.06.18 | 2,000,000 | | |



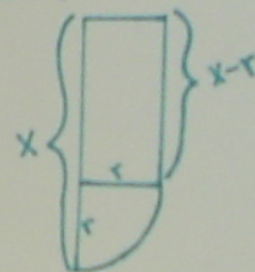
Spring...

Functions:

$$y = \frac{1}{8}x^4 - 9$$

$$y = \frac{1}{2}\cos x$$

Shape of X-section:



$$r = 3.5 - (x\text{-coordinate})$$

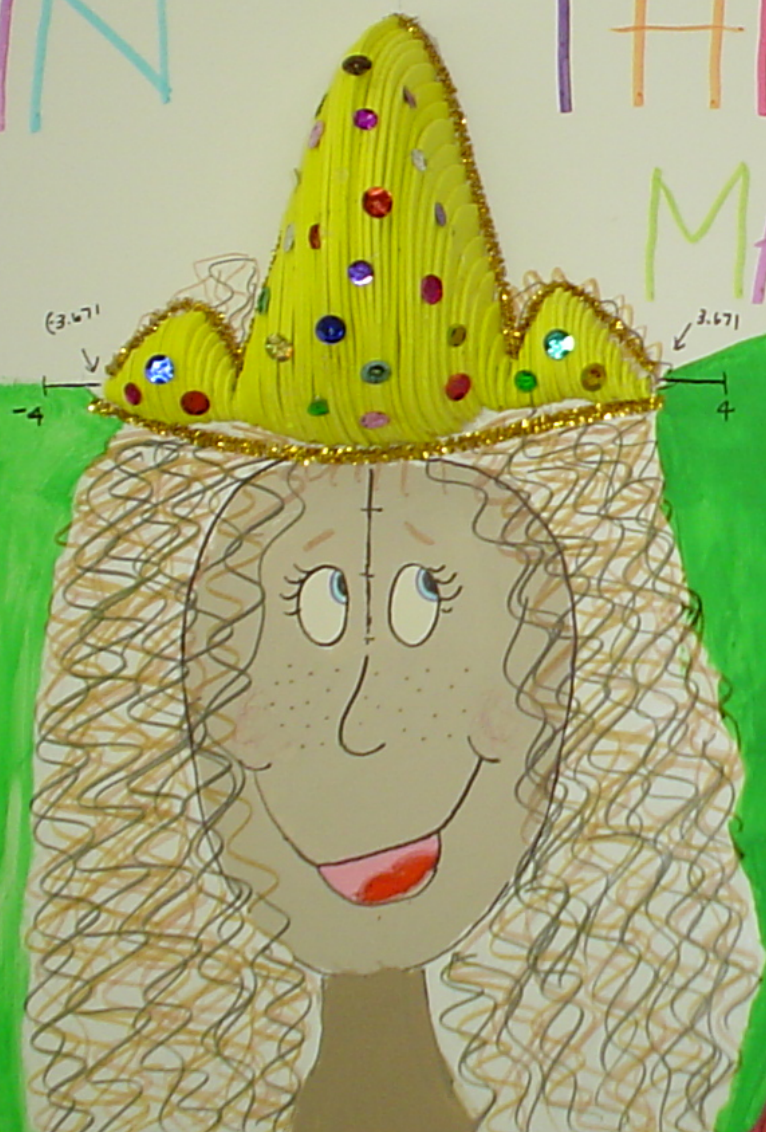
| X - Coordinate | Length | Width | Area | Volume |
|-------------------|--------|--------|--------|--------|
| -3 | 7031 | 5 | 4052 | 66331 |
| -2.844 | 1.0104 | 65625 | 57067 | 68917 |
| -2.688 | 2.3576 | 8125 | 1.7759 | 27717 |
| -2.531 | 3.4861 | 96875 | 3.3757 | 49621 |
| -2.375 | 4.5243 | 1.125 | 4.8183 | 75283 |
| -2.219 | 5.5444 | 1.2813 | 6.7514 | 1.0549 |
| -2.063 | 6.5452 | 1.4375 | 8.9652 | 1.4008 |
| -1.906 | 7.4629 | 1.5938 | 11.349 | 1.7733 |
| -1.75 | 8.2046 | 1.75 | 13.701 | 2.1408 |
| -1.594 | 8.6914 | 1.9063 | 15.788 | 2.4669 |
| -1.438 | 8.8968 | 2.0625 | 17.437 | 2.7245 |
| -1.281 | 8.8636 | 2.2188 | 18.610 | 2.9078 |
| -1.125 | 8.6944 | 2.375 | 19.439 | 3.0373 |
| -0.968 | 8.5183 | 2.5313 | 20.187 | 3.1543 |
| -0.812 | 8.4485 | 2.6875 | 21.155 | 3.3055 |
| -0.656 | 8.5421 | 2.8438 | 22.556 | 3.5244 |
| -0.5 | 8.7841 | 3 | 24.421 | 3.8158 |
| -0.3438 | 9.0955 | 3.1563 | 26.570 | 4.1515 |
| -0.1875 | 9.3657 | 3.3125 | 28.669 | 4.4795 |
| -0.0313 | 9.4961 | 3.4688 | 30.357 | 4.7434 |
| 0 | 9.4388 | 3.575 | 29.413 | 4.9955 |
| 0.125 | 9.2148 | 3.2188 | 27.437 | 4.2870 |
| 0.271 | 8.9663 | 3.0625 | 25.263 | 3.9475 |
| 0.417 | 8.6283 | 2.9063 | 23.252 | 3.6331 |
| 0.563 | 8.4655 | 2.75 | 21.407 | 3.3839 |
| 0.709 | 8.470 | 2.5938 | 20.533 | 3.2083 |

... into math! Total Volume:
89.975

JUL 6 2005

THE MAGIC IS IN THE MATH!

2/50



Cross Section Data

| Station | Height | Area | Volume |
|---------|--------|---------|----------|
| 1 | 1.000 | 1.000 | 1.000 |
| 2 | 1.100 | 1.210 | 2.210 |
| 3 | 1.200 | 1.440 | 3.650 |
| 4 | 1.300 | 1.690 | 5.340 |
| 5 | 1.400 | 1.960 | 7.280 |
| 6 | 1.500 | 2.250 | 9.470 |
| 7 | 1.600 | 2.560 | 11.910 |
| 8 | 1.700 | 2.890 | 14.600 |
| 9 | 1.800 | 3.240 | 17.540 |
| 10 | 1.900 | 3.610 | 20.730 |
| 11 | 2.000 | 4.000 | 24.170 |
| 12 | 2.100 | 4.410 | 27.860 |
| 13 | 2.200 | 4.840 | 31.800 |
| 14 | 2.300 | 5.290 | 36.000 |
| 15 | 2.400 | 5.760 | 40.450 |
| 16 | 2.500 | 6.250 | 45.160 |
| 17 | 2.600 | 6.760 | 50.120 |
| 18 | 2.700 | 7.290 | 55.340 |
| 19 | 2.800 | 7.840 | 60.810 |
| 20 | 2.900 | 8.410 | 66.540 |
| 21 | 3.000 | 9.000 | 72.520 |
| 22 | 3.100 | 9.610 | 78.750 |
| 23 | 3.200 | 10.240 | 85.230 |
| 24 | 3.300 | 10.890 | 91.960 |
| 25 | 3.400 | 11.560 | 98.940 |
| 26 | 3.500 | 12.250 | 106.170 |
| 27 | 3.600 | 12.960 | 113.650 |
| 28 | 3.700 | 13.690 | 121.380 |
| 29 | 3.800 | 14.440 | 129.360 |
| 30 | 3.900 | 15.210 | 137.590 |
| 31 | 4.000 | 16.000 | 146.070 |
| 32 | 4.100 | 16.810 | 154.800 |
| 33 | 4.200 | 17.640 | 163.780 |
| 34 | 4.300 | 18.490 | 173.010 |
| 35 | 4.400 | 19.360 | 182.490 |
| 36 | 4.500 | 20.250 | 192.220 |
| 37 | 4.600 | 21.160 | 202.200 |
| 38 | 4.700 | 22.090 | 212.430 |
| 39 | 4.800 | 23.040 | 222.910 |
| 40 | 4.900 | 24.010 | 233.640 |
| 41 | 5.000 | 25.000 | 244.620 |
| 42 | 5.100 | 26.010 | 255.850 |
| 43 | 5.200 | 27.040 | 267.330 |
| 44 | 5.300 | 28.090 | 279.060 |
| 45 | 5.400 | 29.160 | 291.040 |
| 46 | 5.500 | 30.250 | 303.270 |
| 47 | 5.600 | 31.360 | 315.750 |
| 48 | 5.700 | 32.490 | 328.480 |
| 49 | 5.800 | 33.640 | 341.460 |
| 50 | 5.900 | 34.810 | 354.690 |
| 51 | 6.000 | 36.000 | 368.170 |
| 52 | 6.100 | 37.210 | 381.900 |
| 53 | 6.200 | 38.440 | 395.880 |
| 54 | 6.300 | 39.690 | 410.110 |
| 55 | 6.400 | 40.960 | 424.590 |
| 56 | 6.500 | 42.250 | 439.320 |
| 57 | 6.600 | 43.560 | 454.300 |
| 58 | 6.700 | 44.890 | 469.530 |
| 59 | 6.800 | 46.240 | 485.010 |
| 60 | 6.900 | 47.610 | 500.740 |
| 61 | 7.000 | 49.000 | 516.720 |
| 62 | 7.100 | 50.410 | 532.950 |
| 63 | 7.200 | 51.840 | 549.430 |
| 64 | 7.300 | 53.290 | 566.160 |
| 65 | 7.400 | 54.760 | 583.140 |
| 66 | 7.500 | 56.250 | 600.370 |
| 67 | 7.600 | 57.760 | 617.850 |
| 68 | 7.700 | 59.290 | 635.580 |
| 69 | 7.800 | 60.840 | 653.560 |
| 70 | 7.900 | 62.410 | 671.790 |
| 71 | 8.000 | 64.000 | 690.270 |
| 72 | 8.100 | 65.610 | 709.000 |
| 73 | 8.200 | 67.240 | 727.980 |
| 74 | 8.300 | 68.890 | 747.210 |
| 75 | 8.400 | 70.560 | 766.690 |
| 76 | 8.500 | 72.250 | 786.420 |
| 77 | 8.600 | 73.960 | 806.400 |
| 78 | 8.700 | 75.690 | 826.630 |
| 79 | 8.800 | 77.440 | 847.110 |
| 80 | 8.900 | 79.210 | 867.840 |
| 81 | 9.000 | 81.000 | 888.820 |
| 82 | 9.100 | 82.810 | 909.950 |
| 83 | 9.200 | 84.640 | 931.240 |
| 84 | 9.300 | 86.490 | 952.680 |
| 85 | 9.400 | 88.360 | 974.270 |
| 86 | 9.500 | 90.250 | 996.010 |
| 87 | 9.600 | 92.160 | 1017.900 |
| 88 | 9.700 | 94.090 | 1039.940 |
| 89 | 9.800 | 96.040 | 1062.130 |
| 90 | 9.900 | 98.010 | 1084.470 |
| 91 | 10.000 | 100.000 | 1106.960 |
| 92 | 10.100 | 102.010 | 1129.600 |
| 93 | 10.200 | 104.040 | 1152.390 |
| 94 | 10.300 | 106.090 | 1175.330 |
| 95 | 10.400 | 108.160 | 1198.420 |
| 96 | 10.500 | 110.250 | 1221.660 |
| 97 | 10.600 | 112.360 | 1245.050 |
| 98 | 10.700 | 114.490 | 1268.590 |
| 99 | 10.800 | 116.640 | 1292.280 |
| 100 | 10.900 | 118.810 | 1316.120 |
| 101 | 11.000 | 121.000 | 1340.110 |
| 102 | 11.100 | 123.210 | 1364.250 |
| 103 | 11.200 | 125.440 | 1388.540 |
| 104 | 11.300 | 127.690 | 1412.980 |
| 105 | 11.400 | 129.960 | 1437.570 |
| 106 | 11.500 | 132.250 | 1462.310 |
| 107 | 11.600 | 134.560 | 1487.200 |
| 108 | 11.700 | 136.890 | 1512.240 |
| 109 | 11.800 | 139.240 | 1537.430 |
| 110 | 11.900 | 141.610 | 1562.770 |
| 111 | 12.000 | 144.000 | 1588.260 |
| 112 | 12.100 | 146.410 | 1613.900 |
| 113 | 12.200 | 148.840 | 1639.690 |
| 114 | 12.300 | 151.290 | 1665.630 |
| 115 | 12.400 | 153.760 | 1691.720 |
| 116 | 12.500 | 156.250 | 1717.960 |
| 117 | 12.600 | 158.760 | 1744.350 |
| 118 | 12.700 | 161.290 | 1770.890 |
| 119 | 12.800 | 163.840 | 1797.580 |
| 120 | 12.900 | 166.410 | 1824.420 |
| 121 | 13.000 | 169.000 | 1851.410 |
| 122 | 13.100 | 171.610 | 1878.550 |
| 123 | 13.200 | 174.240 | 1905.840 |
| 124 | 13.300 | 176.890 | 1933.280 |
| 125 | 13.400 | 179.560 | 1960.870 |
| 126 | 13.500 | 182.250 | 1988.610 |
| 127 | 13.600 | 184.960 | 2016.500 |
| 128 | 13.700 | 187.690 | 2044.540 |
| 129 | 13.800 | 190.440 | 2072.730 |
| 130 | 13.900 | 193.210 | 2101.070 |
| 131 | 14.000 | 196.000 | 2129.560 |
| 132 | 14.100 | 198.810 | 2158.200 |
| 133 | 14.200 | 201.640 | 2186.990 |
| 134 | 14.300 | 204.490 | 2215.930 |
| 135 | 14.400 | 207.360 | 2245.020 |
| 136 | 14.500 | 210.250 | 2274.260 |
| 137 | 14.600 | 213.160 | 2303.650 |
| 138 | 14.700 | 216.090 | 2333.190 |
| 139 | 14.800 | 219.040 | 2362.880 |
| 140 | 14.900 | 222.010 | 2392.720 |
| 141 | 15.000 | 225.000 | 2422.710 |
| 142 | 15.100 | 228.010 | 2452.850 |
| 143 | 15.200 | 231.040 | 2483.140 |
| 144 | 15.300 | 234.090 | 2513.580 |
| 145 | 15.400 | 237.160 | 2544.170 |
| 146 | 15.500 | 240.250 | 2574.910 |
| 147 | 15.600 | 243.360 | 2605.800 |
| 148 | 15.700 | 246.490 | 2636.840 |
| 149 | 15.800 | 249.640 | 2668.030 |
| 150 | 15.900 | 252.810 | 2699.370 |
| 151 | 16.000 | 256.000 | 2730.860 |
| 152 | 16.100 | 259.210 | 2762.500 |
| 153 | 16.200 | 262.440 | 2794.290 |
| 154 | 16.300 | 265.690 | 2826.230 |
| 155 | 16.400 | 268.960 | 2858.320 |
| 156 | 16.500 | 272.250 | 2890.560 |
| 157 | 16.600 | 275.560 | 2922.950 |
| 158 | 16.700 | 278.890 | 2955.490 |
| 159 | 16.800 | 282.240 | 2988.180 |
| 160 | 16.900 | 285.610 | 3021.020 |
| 161 | 17.000 | 289.000 | 3054.010 |
| 162 | 17.100 | 292.410 | 3087.150 |
| 163 | 17.200 | 295.840 | 3120.440 |
| 164 | 17.300 | 299.290 | 3153.880 |
| 165 | 17.400 | 302.760 | 3187.470 |
| 166 | 17.500 | 306.250 | 3221.210 |
| 167 | 17.600 | 309.760 | 3255.100 |
| 168 | 17.700 | 313.290 | 3289.140 |
| 169 | 17.800 | 316.840 | 3323.330 |
| 170 | 17.900 | 320.410 | 3357.670 |
| 171 | 18.000 | 324.000 | 3392.160 |
| 172 | 18.100 | 327.610 | 3426.800 |
| 173 | 18.200 | 331.240 | 3461.590 |
| 174 | 18.300 | 334.890 | 3496.530 |
| 175 | 18.400 | 338.560 | 3531.620 |
| 176 | 18.500 | 342.250 | 3566.860 |
| 177 | 18.600 | 345.960 | 3602.250 |
| 178 | 18.700 | 349.690 | 3637.790 |
| 179 | 18.800 | 353.440 | 3673.480 |
| 180 | 18.900 | 357.210 | 3709.320 |
| 181 | 19.000 | 361.000 | 3745.310 |
| 182 | 19.100 | 364.810 | 3781.450 |
| 183 | 19.200 | 368.640 | 3817.740 |
| 184 | 19.300 | 372.490 | 3854.180 |
| 185 | 19.400 | 376.360 | 3890.770 |
| 186 | 19.500 | 380.250 | 3927.510 |
| 187 | 19.600 | 384.160 | 3964.400 |
| 188 | 19.700 | 388.090 | 4001.440 |
| 189 | 19.800 | 392.040 | 4038.630 |
| 190 | 19.900 | 396.010 | 4075.970 |
| 191 | 20.000 | 400.000 | 4113.460 |
| 192 | 20.100 | 404.010 | 4151.100 |
| 193 | 20.200 | 408.040 | 4188.890 |
| 194 | 20.300 | 412.090 | 4226.830 |
| 195 | 20.400 | 416.160 | 4264.920 |
| 196 | 20.500 | 420.250 | 4303.160 |
| 197 | 20.600 | 424.360 | 4341.550 |
| 198 | 20.700 | 428.490 | 4380.090 |
| 199 | 20.800 | 432.640 | 4418.780 |
| 200 | 20.900 | 436.810 | 4457.620 |
| 201 | 21.000 | 441.000 | 4496.610 |
| 202 | 21.100 | 445.210 | 4535.750 |
| 203 | 21.200 | 449.440 | 4575.040 |
| 204 | 21.300 | 453.690 | 4614.480 |
| 205 | 21.400 | 457.960 | 4654.070 |
| 206 | 21.500 | 462.250 | 4693.810 |
| 207 | 21.600 | 466.560 | 4733.700 |
| 208 | 21.700 | 470.890 | 4773.740 |
| 209 | 21.800 | 475.240 | 4813.930 |
| 210 | 21.900 | 479.610 | 4854.270 |
| 211 | 22.000 | 484.000 | 4894.760 |
| 212 | 22.100 | 488.410 | 4935.400 |
| 213 | 22.200 | 492.840 | 4976.190 |
| 214 | 22.300 | 497.290 | 5017.130 |
| 215 | 22.400 | 501.760 | 5058.220 |
| 216 | 22.500 | 506.250 | 5099.460 |
| 217 | 22.600 | 510.760 | 5140.850 |
| 218 | 22.700 | 515.290 | 5182.390 |
| 219 | 22.800 | 519.840 | 5224.080 |
| 220 | 22.900 | 524.410 | 5265.920 |
| 221 | 23.000 | 529.000 | 5307.910 |
| 222 | 23.100 | 533.610 | 5349.950 |
| 223 | 23.200 | 538.240 | 5392.140 |
| 224 | 23.300 | 542.890 | 5434.480 |
| 225 | 23.400 | 547.560 | 5476.970 |
| 226 | 23.500 | 552.250 | 5519.610 |
| 227 | 23.600 | 556.960 | 5562.400 |
| 228 | 23.700 | 561.690 | 5605.340 |
| 229 | 23.800 | 566.440 | 5648.430 |
| 230 | 23.900 | 571.210 | 5691.670 |
| 231 | 24.000 | 576.000 | 5735.060 |
| 232 | 24.100 | 580.810 | 5778.600 |
| 233 | 24.200 | 585.640 | 5822.290 |
| 234 | 24.300 | 590.490 | 5866.130 |
| 235 | 24.400 | 595.360 | 5910.120 |
| 236 | 24.500 | 600.250 | 5954.260 |
| 237 | 24.600 | 605.160 | 5998.550 |
| 238 | 24.700 | 610.090 | 6043.000 |
| 239 | 24.800 | 615.040 | 6087.600 |
| 240 | 24.900 | 620.010 | 6132.350 |
| 241 | 25.000 | 625.000 | 6177.250 |
| 242 | 25.100 | 630.010 | 6222.300 |
| 243 | 25.200 | 635.040 | 6267.500 |
| 244 | 25.300 | 640.090 | 6312.850 |
| 245 | 25.400 | 645.160 | 6358.350 |
| 246 | 25.500 | 650.250 | 6404.000 |
| 247 | 25.600 | 655.360 | 6449.800 |
| 248 | 25.700 | 660.490 | 6495.750 |
| 249 | 25.800 | 665.640 | 6541.850 |
| 250 | 25.900 | 670.810 | 6588.100 |
| 251 | 26.000 | 676.000 | 6634.500 |
| 252 | 26.100 | 681.210 | 6681.050 |
| 253 | 26.200 | 686.440 | 6727.750 |
| 254 | 26.300 | 691.690 | 677 |