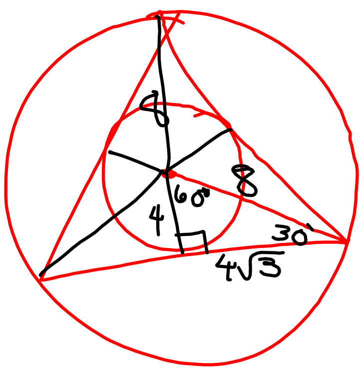
From Handout:

- Ch 12 Practice Test p. 723 #1-25
- Ch 12 Standardized Practice Test p. 724-725 #1-10
- Ch 13 Practice Test p. 769 #1-25
- Ch 13 Standardized Practice Test p. 770-771 #1-12

Due Wed. 5/10



area of big circle − area of triangle + area of small circle

$\pi R^2 - \frac{1}{2} b h + \pi r^2$

$-3(8)^2 \cos\frac{180°}{3} \sin\frac{180}{3}$

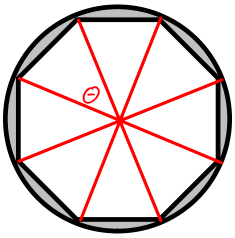
$-3 \cdot 64 \cdot \frac{1}{2} \cdot \frac{\sqrt{3}}{2}$

$\pi(8)^2 - (4\sqrt{3})(4+8) + \pi(4)^2$ (4+8 = 12)

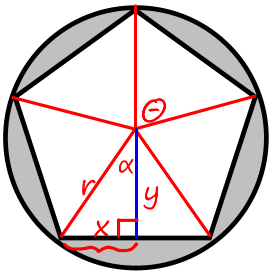
$64\pi - 48\sqrt{3} + 16\pi$

$= 80\pi - 48\sqrt{3}$

$\approx$



$\theta = \frac{360}{n}$ $\alpha = \frac{1}{2}\theta$ $\alpha = \frac{180}{n}$



$\cos\alpha = \frac{y}{r}$ $y = r\cos\alpha$

$\sin\alpha = \frac{x}{r}$ $x = r\sin\alpha$

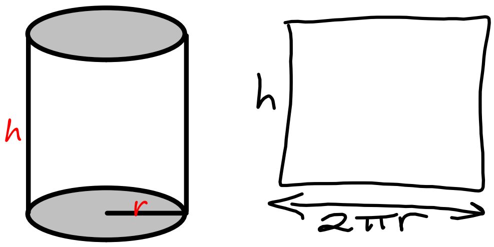
We have n triangles whose base is 2x and height is y.

$Area\ of\ polygon = n(r\cos\alpha)(r\sin\alpha)$

$A = nr^2\cos\frac{180}{n}\sin\frac{180}{n}$

$Perimeter\ of\ polygon = n(2x)$

$P = 2nr\sin\frac{180}{n}$



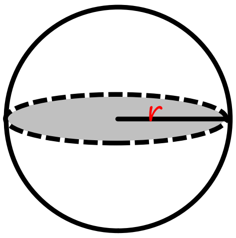
$area\ of\ circular\ base = \pi r^2$

$V_{cylinder} = \pi r^2 h$

$circumference\ of\ circular\ base = 2\pi r$

$lateral\ surface\ area\ of\ cylinder = 2\pi rh$

$total\ surface\ area\ of\ cylinder = 2\pi rh + 2\pi r^2$

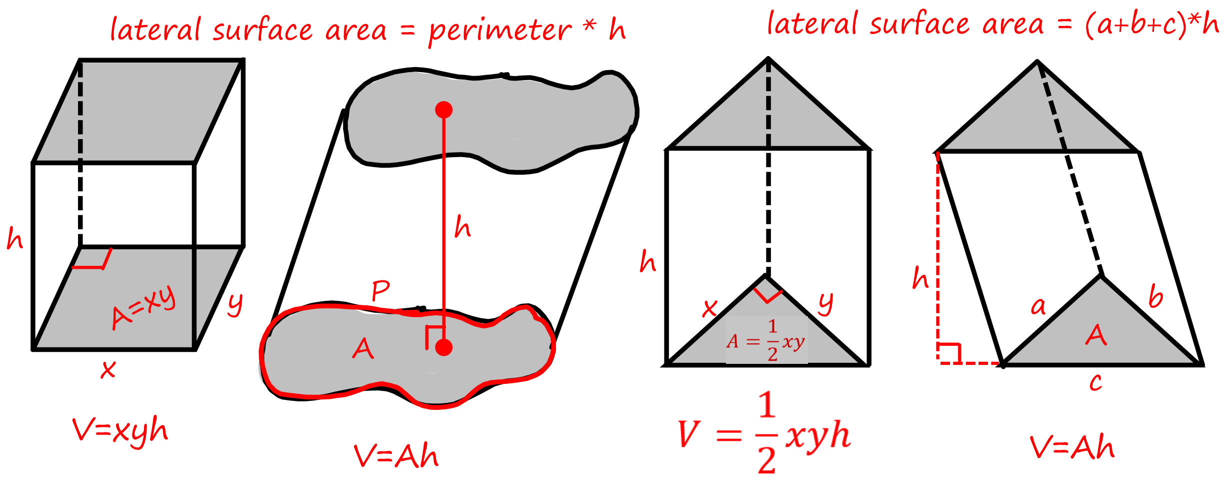


$C = 2\pi r$

$\frac{C}{2\pi} = r$

$V_{sphere} = \frac{4}{3}\pi r^3$

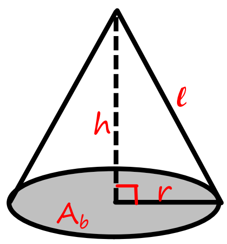
$surface\ area\ of\ sphere = 4\pi r^2$

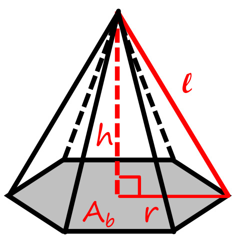


The volume of a prism is equal to the product of the area of the base times the perpendicular height.

The lateral surface area of a prism is equal to the perimeter of a base times the perpendicular height.

The surface area of a prism is equal to the sum of the areas of the two bases and the lateral surface area.





$V_{cone} = \frac{1}{3}A_b h$

$A_{base} = \pi r^2$

$V_{cone} = \frac{1}{3}\pi r^2 h$

lateral area of a cone

$= \frac{1}{2}\pi r^2 l$

total surface area of a cone

$= \frac{1}{2}\pi r^2 l + \pi r^2$

$V_{pyramid} = \frac{1}{3}A_b h$

lateral area of a pyramid

$= \frac{1}{2}A_b l$

total surface area of a pyramid

$= \frac{1}{2}A_b l + A_b$