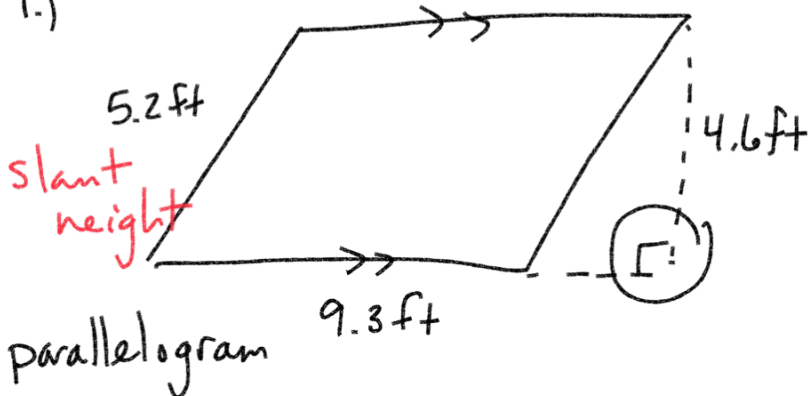


1.)



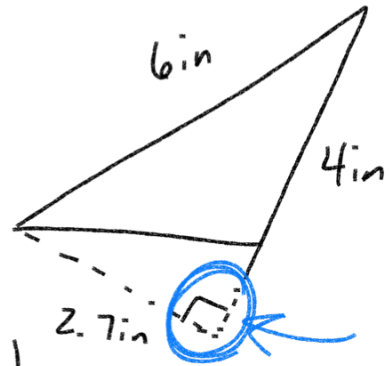
parallelogram

$$A = bh$$

$$A = (9.3\text{ft})(4.6\text{ft})$$

$$\boxed{42.8\text{ft}^2}$$

2.)



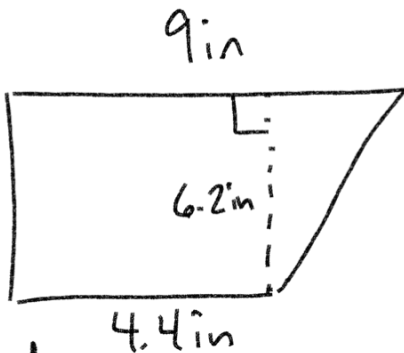
Triangle

$$A = \frac{1}{2}bh$$

$$A = \frac{1}{2}(2.7\text{in})(4\text{in})$$

$$\boxed{5.4\text{in}^2}$$

3.)



Trapezoid

$$A = \left(\frac{b_1 + b_2}{2}\right)h$$

$$A = \left(\frac{4.4\text{in} + 9\text{in}}{2}\right)6.2\text{in}$$

$$\boxed{41.5\text{in}^2}$$

4.)



n = number of sides

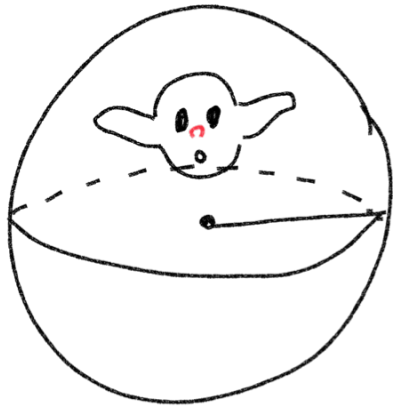
L = length

Regular Polygon

$$A = \frac{1}{2}(n * L)(\text{apothem})$$

$$A = \frac{1}{2}(8)(8.7\text{in})(9\text{in})$$

$$\boxed{313.2\text{in}^2}$$



$$r = 2.3 \text{ in} \quad \text{Volume} =$$

$$V = \frac{4}{3} \pi r^3$$

$$\frac{4}{3} \pi (2.3 \text{ in})^3 = \boxed{5 \text{ in}^3}$$

Volume of a Prism
Cylinder

$$\text{Volume} = (\text{Area of the base}) \text{ height}$$



$$\text{Base} \rightarrow \text{Circle} \quad A = \pi r^2$$

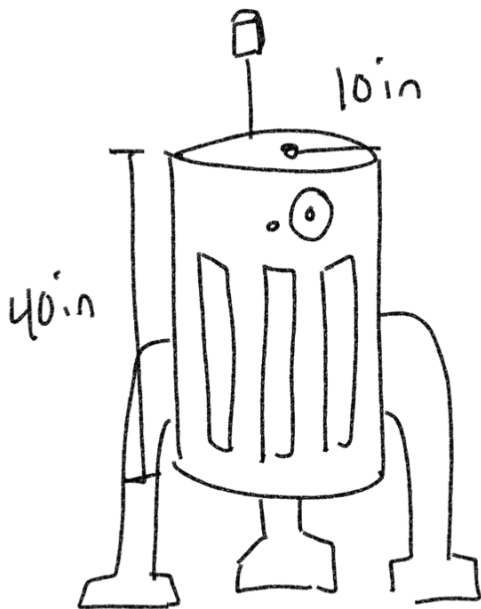
$$V = \pi r^2 h$$

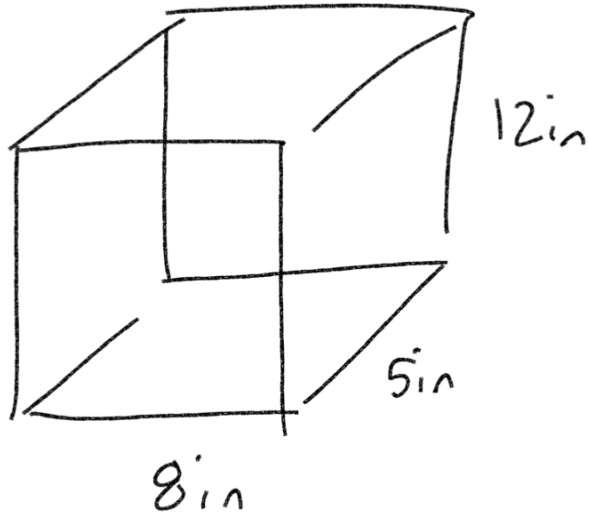
$$V = \pi r^2 h$$

$$= \pi (10 \text{ in})^2 (40 \text{ in})$$

$$4000 \pi \text{ in}^3$$

$$\boxed{12,566 \text{ in}^3}$$

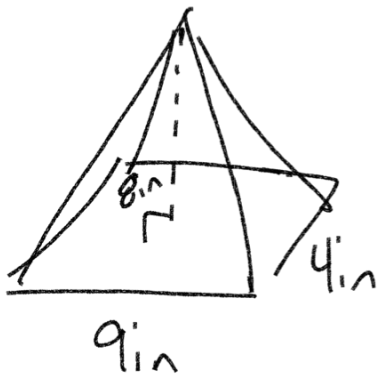




$$V = (\text{Area of Base}) \text{ height}$$
$$L * W * H$$

$$(8 \text{ in}) (5 \text{ in}) (12 \text{ in})$$
$$480 \text{ in}^3$$

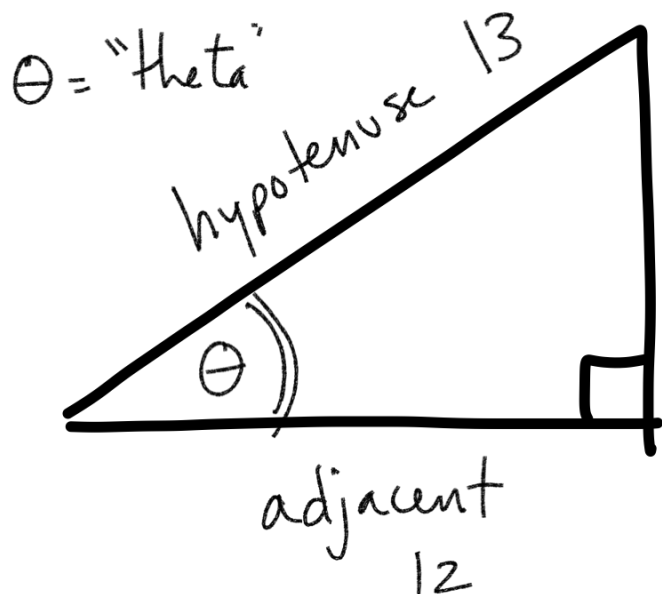
Rectangular Pyramid



$$V = \frac{1}{3} (\text{Area of base}) \text{ height}$$

$$\frac{1}{3} (9 \text{ in}) (4 \text{ in}) (8 \text{ in})$$
$$96 \text{ in}^3$$

Trigonometric Ratios (Right Triangles)



Sine (sin)

$$\sin \theta = \left[\frac{\text{opposite}}{\text{hypotenuse}} \right] = \frac{5}{13}$$

Cosine (cos)

$$\cos \theta = \left[\frac{\text{adjacent}}{\text{hypotenuse}} \right] = \frac{12}{13}$$

tangent (tan)

$$\tan \theta = \frac{\sin \theta}{\cos \theta} = \frac{\frac{\text{opp}}{\text{hyp}}}{\frac{\text{adj}}{\text{hyp}}}$$

Keep, Change, Flip

$$\frac{\text{opp}}{\text{hyp}} \div \frac{\text{adj}}{\text{hyp}} = \frac{\text{opp}}{\text{hyp}} * \frac{\text{hyp}}{\text{adj}} = \frac{\text{opp}}{\text{adj}}$$

$$\tan \theta = \frac{\text{opp}}{\text{adj}}$$

SOH

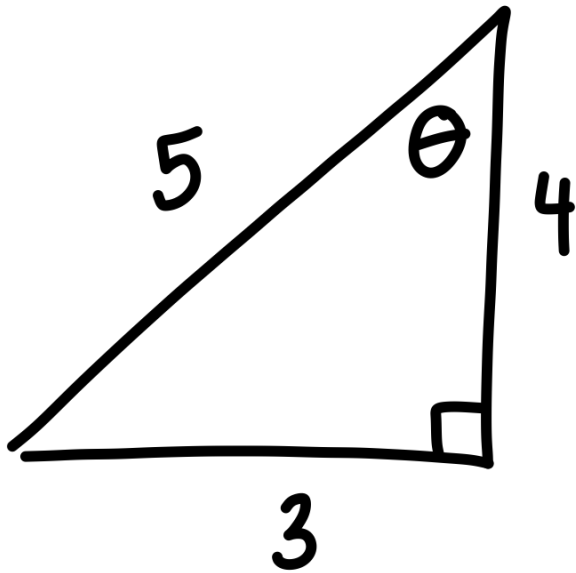
CAH

TOA

$$\underline{\sin} = \frac{\underline{\text{opp}}}{\underline{\text{hyp}}}$$

$$\underline{\cos} = \frac{\underline{\text{adj}}}{\underline{\text{hyp}}}$$

$$\underline{\tan} = \frac{\underline{\text{opp}}}{\underline{\text{adj}}}$$

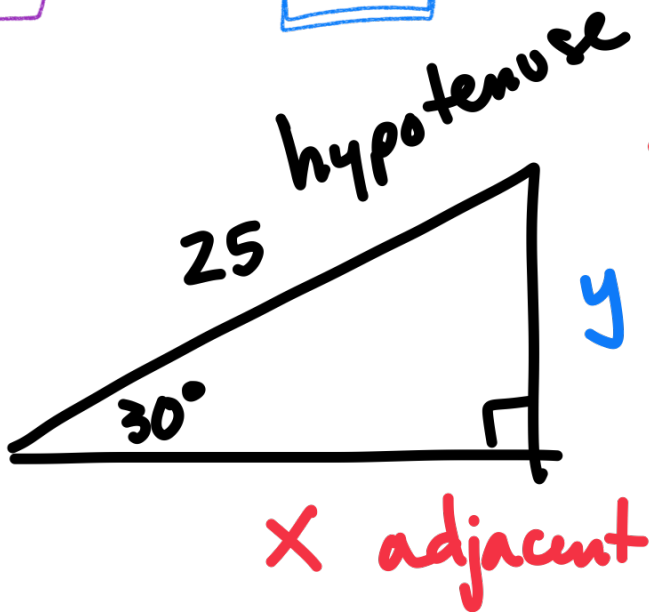


$$\cos \theta = \frac{\text{adj}}{\text{hyp}} = \frac{4}{5}$$

$$\tan \theta = \frac{\text{opp}}{\text{adj}} = \frac{3}{4}$$

$$\sin \theta = \frac{\text{opp}}{\text{hyp}} = \frac{3}{5}$$

SOH CAH TOA



$$25 (\cos 30^\circ) = \left(\frac{X}{25}\right) 25$$

$$X = 25 \cos 30^\circ$$

$$\boxed{21.65}$$

$$y = 25 (\sin 30) = \left(\frac{y}{25}\right) 25$$

$$y = 25 \sin 30 = \boxed{12.5}$$