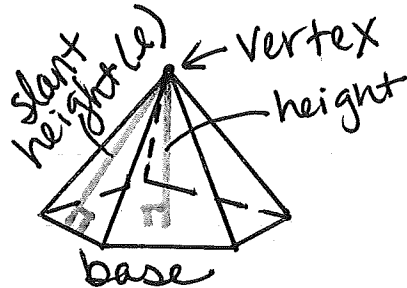


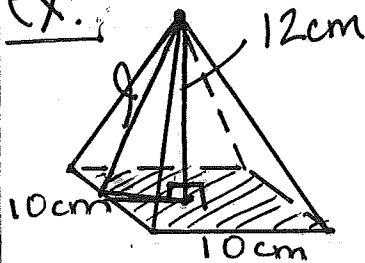
12-4 Surface Area of Pyramids



$$SA = \frac{1}{2} P l + B$$

perimeter of base slant height area of base

ex:

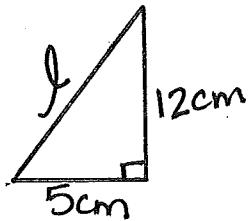


$$SA = \frac{1}{2} P l + B$$

$$P = 40 \text{ cm}$$

$$l = 13 \text{ cm}$$

$$B = 10(10) = 100 \text{ cm}^2$$



$$5^2 + 12^2 = l^2$$

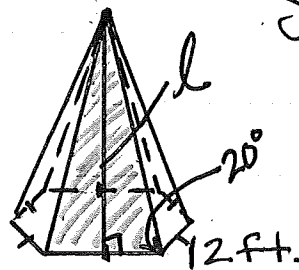
$$169 = l^2$$

$$l = 13 \text{ cm}$$

$$SA = \frac{1}{2} (40)(13) + 100$$

$$= 360 \text{ cm}^2$$

ex:

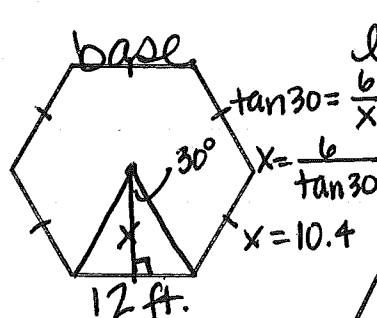


$$SA = \frac{1}{2} P l + B$$

$$P = 72 \text{ ft.}$$

$$l = 2.18 \text{ ft.}$$

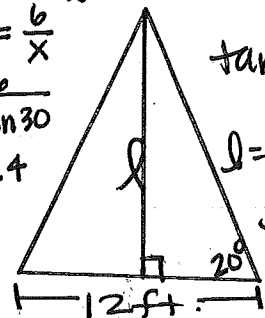
$$B = 374.4 \text{ ft}^2$$



$$B = \frac{1}{2} (72)(10.4)$$

$$B = 374.4 \text{ ft}^2$$

lateral side



$$\tan 20 = \frac{l}{6}$$

$$l = \tan 20 \cdot 6$$

$$l = 2.18 \text{ ft.}$$

$$\begin{aligned} SA &= \frac{1}{2}(72)(2.18) + 374.4 \\ &= 78.48 + 374.4 \\ &= 452.9 \text{ ft}^2 \end{aligned}$$