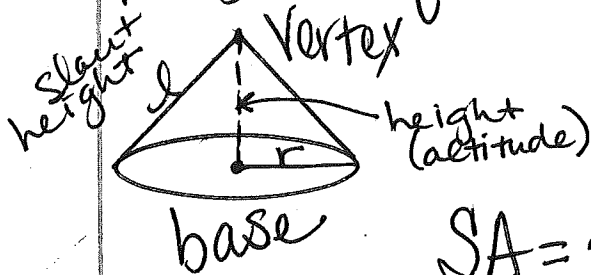
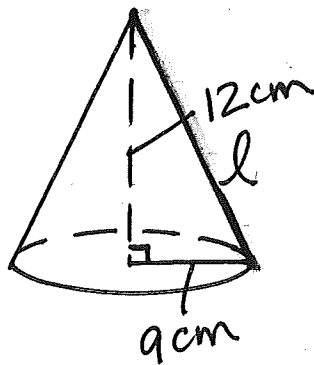


# 12-5 Surface Area of Cones



$$SA = \pi r l + \pi r^2$$

ex:



$$12^2 + 9^2 = l^2$$

$$144 + 81 = l^2$$

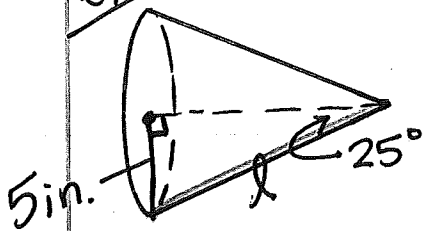
$$\sqrt{225} = l$$

$$l = 15 \text{ cm}$$

$$SA = \pi(9)(15) + \pi(9)^2$$

$$SA = \boxed{678.6 \text{ cm}^2}$$

ex:



$$\sin 25 = \frac{5}{l}$$

$$l = \frac{5}{\sin 25}$$

$$l = 11.8$$

$$SA = \pi(5)(11.8) + \pi(5)^2$$

$$= \boxed{263.9 \text{ in}^2}$$