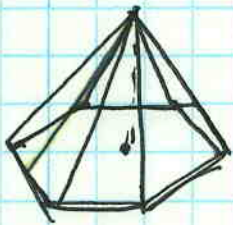


# 10-3 SA of Pyramids / cone

- ① Draw & label each face
- ② Find Areas
- ③ Add together

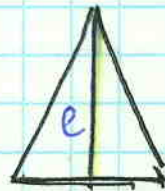
## Pyramid



## Faces



base



x 6  
Lateral  
face

$l = \text{slant height}$

$$\begin{aligned} \text{Area Base} \\ = \frac{1}{2} a s n \end{aligned}$$

$$\begin{aligned} \text{Faces} \\ = \frac{1}{2} s l n \end{aligned}$$

$$\text{Total Area} = \frac{1}{2} a s n + \frac{1}{2} s l n$$

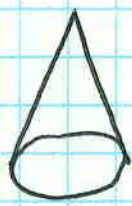
# sides  $\uparrow$  same  $\leftarrow$  # triangles  $\uparrow$

$$\underline{\text{SA pyramid}} = \frac{1}{2} s n (a + l)$$

$s = \text{side length}$   
 $n = \text{number of sides}$

$a = \text{apothem}$   
 $l = \text{slant height}$

# Cones - Surface Area



SA

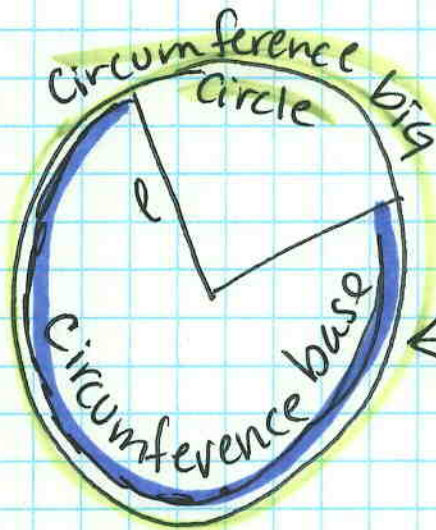


+



circle  
base

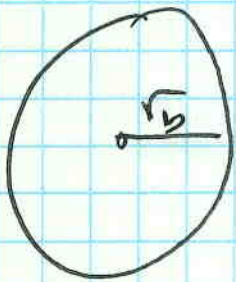
sector  
(cone)



open cone

$$\frac{r_b}{l} = \frac{\theta}{360^\circ}$$

fraction  
of the sector



$$+ \quad A_{\text{sector}} = \frac{r_b}{l} \pi l^2 = r_b \pi l$$

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

$$\boxed{\text{Total} = \underline{r} \pi l + \pi r^2}$$

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~~SA~~ SA #13 541