

**20 minute review, then we'll  
take our Ch 7 & 8 Test!**

sum of the interior angles in a polygon:

$$180(n-2)$$

n is # of sides

one interior angle in a regular polygon:

$$\frac{180(n-2)}{n}$$

⑦  $\frac{180(n-2)}{n} = 157.5 \cdot n$

$$180(n-2) = 157.5n$$

$$180n - 360 = 157.5n$$

$$-157.5n + 360 - 157.5n + 360$$

$$\frac{22.5n}{22.5} = \frac{360}{22.5}$$

n = 16 sided polygon  
or 16-gon

⑥ 5-sided

a) sum:  $180(5-2) = 180(3) = 540^\circ$

b)  $2x + 7x - 12 + 4x + 4x + 2 + 5x = 540$

c)  $\angle P T S$ :

$$5x = 5(25) = 125^\circ$$

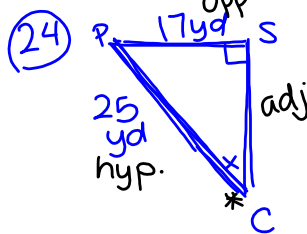
$$22x - 10 = 540$$

$$+10 \quad +10$$

$$\frac{22x = 550}{22 \quad 22}$$

d)  $\angle R Q P$ :

$$7x - 12 = 7(25) - 12 = 163^\circ \quad x = 25$$

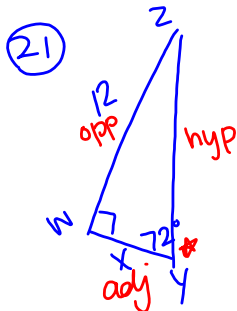


$$\sin x = \frac{17}{25}$$

$$\sin^{-1}(\sin x) = \sin^{-1}\left(\frac{17}{25}\right)$$

$$x = \sin^{-1}\left(\frac{17}{25}\right)$$

$$x = 42.8^\circ$$



$$x \cdot \tan 72 = \frac{12}{x}$$

$$\frac{x \tan 72}{\tan 72} = \frac{12}{\tan 72}$$

$$x = \frac{12}{\tan 72}$$

$$x \approx 3.9$$

# Chapter 7 & 8 Test

1a & 2a, ratio means  
sin, cos, or tan