

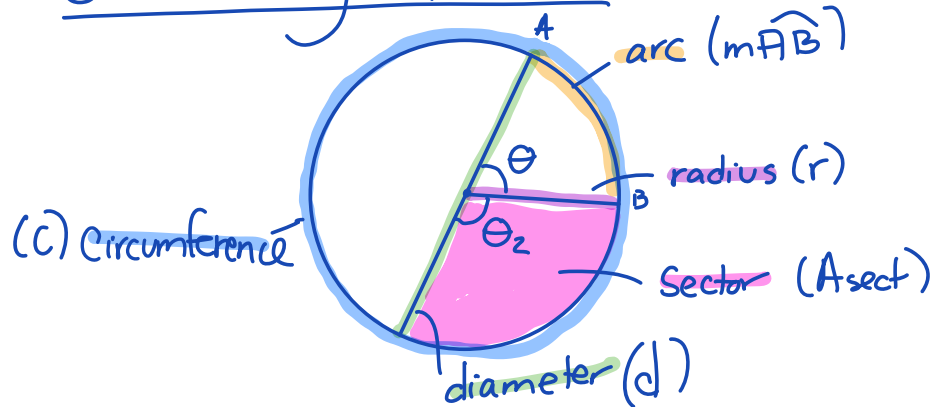
Agenda: June 7

- Geometry Recap
- Practice w/ prep book or review worksheets
- Distribute Memory Aid Sheet if didn't get one

Reminder: Bring Red End of Year Book for every class

Geometry Review

Circles



Formulas

$$C = 2\pi r \quad - \text{If I know } C, \text{ I can find } d \text{ or } r$$

$$C = \pi d \quad - \text{If I know } d \text{ or } r \text{ I can find } C$$

$$A = \pi r^2 \quad - \text{If I know } r, \text{ I can find } A$$

$$A = \pi r^2 \quad - \text{If I know } A, \text{ I can find } r$$

$$\frac{m\widehat{AB}}{C} = \frac{\theta}{360} \quad - \text{If I know } m\widehat{AB} \text{ \& } \theta, \text{ I can find } C$$

$$- \text{If I know } C \text{ \& } \theta, \text{ I can find } m\widehat{AB}$$

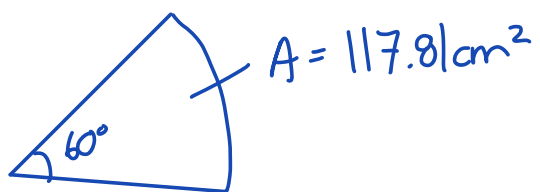
$$- \text{If I know } m\widehat{AB} \text{ \& } C, \text{ I can find } \theta$$

$$\frac{A_{\text{sector}}}{A_{\text{circle/disc}}} = \frac{\theta}{360} \quad - \text{If I know } A_{\text{sect}} \text{ \& } \theta, \text{ I can find } A$$

$$- \text{If I know } A_{\text{circle}} \text{ \& } \theta, \text{ I can find } A_{\text{sect}}$$

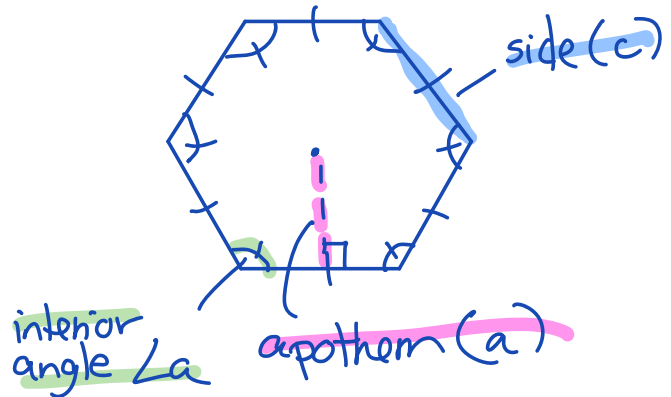
$$- \text{If I know } A_{\text{circle}} \text{ \& } A_{\text{sect}}, \text{ I can find } \theta$$

What is the arc length of the following sector?



Regular Polygons

n # of sides = 6



Formulas

Sum of interior angles

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

1 interior angle

$$\angle a = \frac{180(n-2)}{n}$$

- If I know n , I can find S or $\angle a$

- If I know S or $\angle a$, I can find n

$$P = n \cdot c$$

- If I know n & c , I can find P

- If I know P & n , I can find c

- If I know P & c , I can find n

$$A = \frac{nac}{2}$$

- If I know n , a & c , I can find A

- If I know P & a , I can find A

- If I know A , n & a , I can find c

- If I know A , n & c , I can find a

- If I know A , c & a , I can find n

- If I know A & a , I can find P

or

$$A = \frac{P \cdot a}{2}$$

A polygon with an interior angle of 120° has a circle with an area of 254.34 cm^2 fitting perfectly inside it. What is the area of the polygon if its side length is 12 cm ?

Circle

$$A = 254.34 \text{ cm}^2$$

↳ I can find r

$$r = \text{apothem}$$

Regular polygon

$$\angle a = 120^\circ \rightarrow \text{I can find } n$$

$$A = ?$$

$$c = 12 \text{ cm}$$

① Find radius/apothem

$$A = \pi r^2$$

Steps for complex problems

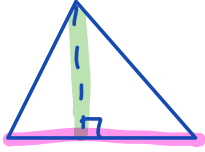
Extra Area Formulas

Shape

Perimeter

Area

Triangle



$$P = \text{side} + \text{side} + \text{side}$$

$$A = \frac{b \times h}{2}$$

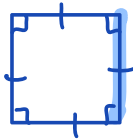
Rectangle



$$P = 2l + 2w$$

$$A = l \times w$$

Square



$$P = 4c$$

$$A = c^2$$

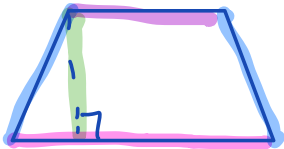
Parallelogram



$$P = 2b + 2\text{side}$$

$$A = b \times h$$

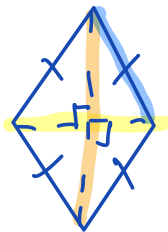
Trapezoid



$$P = B + b + \text{side} + \text{side}$$

$$A = \frac{(B + b) \times h}{2}$$

Rhombus



$$P = 4c$$

$$A = \frac{D \times d}{2}$$