

Geometry – Homework

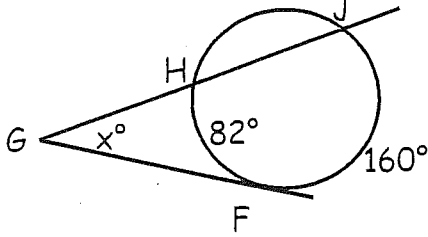
Name: **Key**

Unit 3: Circles

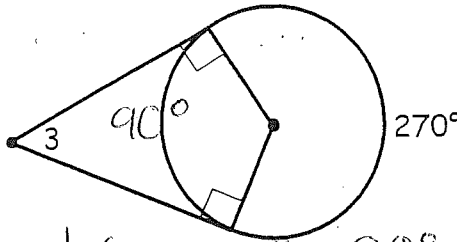
Period: 2 4 7

Date: 12/7/17

1. $x = 36^\circ$ $\frac{1}{2}(160 - 82)$
 $\frac{1}{2}(78)$

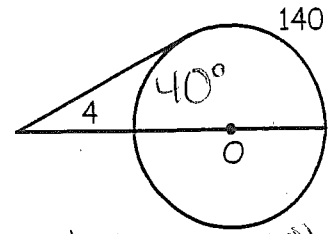


2. $m\angle 3 = 90^\circ$



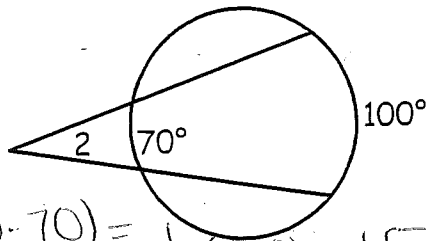
$\frac{1}{2}(270 - 90) = 90^\circ$

3. $m\angle 4 = 50^\circ$



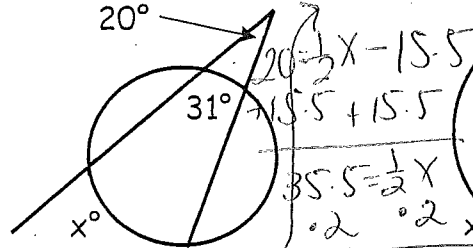
$\frac{1}{2}(140 - 40) =$
 $\frac{1}{2}(100) = 50^\circ$

4. $m\angle 2 = 15^\circ$



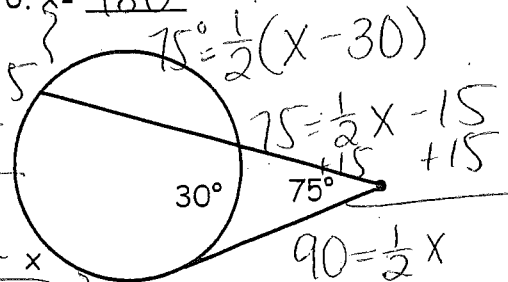
$\frac{1}{2}(100 - 70) = \frac{1}{2}(30) = 15$

5. $x = 71^\circ$



$20 = \frac{1}{2}(x - 31)$ $x = 71^\circ$

6. $x = 180^\circ$



$75 = \frac{1}{2}(x - 30)$
 $75 = \frac{1}{2}x - 15$
 $+15 \quad +15$

$90 = \frac{1}{2}x$
 $\cdot 2 \quad \cdot 2$
 $180 = x$

7. $m\angle 1 = 67.5^\circ$ $m\text{Arc}2 = \text{wavy}$ 8. $m\angle 1 = 51.5^\circ$

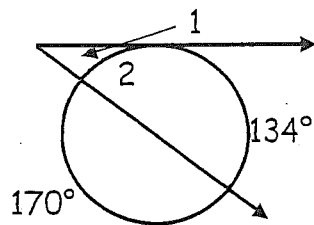
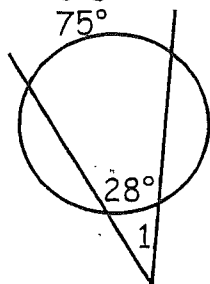
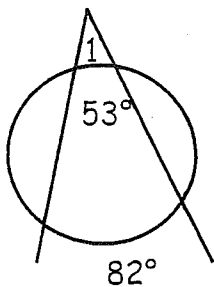
9. $m\text{Arc}2 = 56^\circ$ $m\angle 1 = 39^\circ$

$\angle 1 = \frac{82 + 53}{2}$

$\angle 1 = \frac{28 + 75}{2}$

$170 + 134 = 304$
 $360 - 304 = 56^\circ$

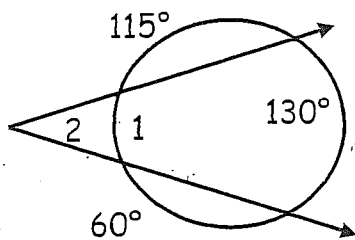
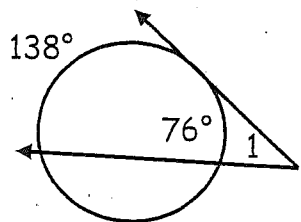
$\angle 1 = \frac{135}{2}$



$\angle 1 = \frac{1}{2}(134 - 56)$
 39°

9. $m\angle 1 = 31^\circ$

10. $m\text{Arc}1 = 55^\circ$ $m\angle 2 = 37.5^\circ$



130
 $+ 115$
 $\hline 245$
 $+ 60$
 $\hline 305$

$m\angle 2 = \frac{130 - 55}{2}$

$m\angle 2 = 37.5$

$\frac{1}{2}(138 - 76) =$

360
 $- 305$
 $\hline 55^\circ$

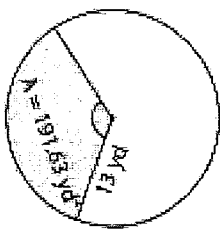
Geometry – Review

Unit 3- Arc Length and Sector Area

Name: **KEY**

Period: 2 4 7

Date: 12/14/17



Radius = 13 yd

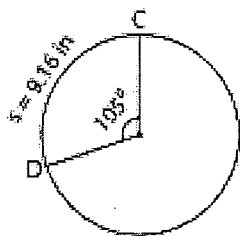
Central angle = 130°

Area of a sector = 191.63 yd²

$$AOS = \frac{x}{360} \cdot \pi r^2$$

$$191.63 = \frac{x}{360} \cdot \pi (13)^2$$

$$\frac{191.63}{1.47} = \frac{1.47x}{1.47}$$



Radius = 5 in

Central angle = 105°

Length of the arc CD = 9.16 in

$$\text{Arc Length} = 2\pi r \times \frac{x}{360}$$

$$9.16 = 2\pi r \times \frac{105}{360}$$

$$\frac{9.16}{1.83} = \frac{1.83r}{1.83} \quad r = 5$$

$x = 130^\circ$

$$2\pi r \times \frac{x}{360} = \text{ARC LENGTH}$$



$$2(\pi)(10) \times \frac{x}{360} = 23.55$$

$$.17x = 23.55$$

Length of the arc OP = 23.55 yd

120.9 yd² or

Area = 38.5π yd²

$x = 138.5^\circ$

$$AOS = \pi r^2 \times \frac{x}{360}$$

$$AOS = \pi (10)^2 \times \frac{138.5}{360}$$