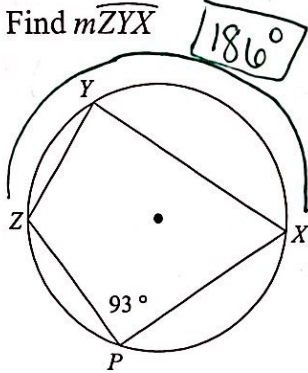


Inscribed Angles and Polygons WS

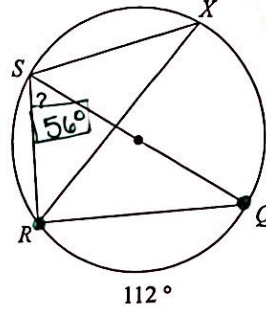
Find the measure of the arc or angle indicated.

1) Find $m\widehat{ZYX}$



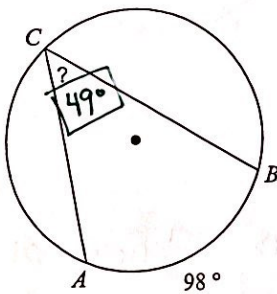
$93 \cdot 2 = 186^\circ$

2)



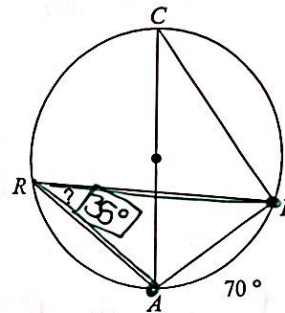
$\frac{1}{2}(112) = 56$

3)

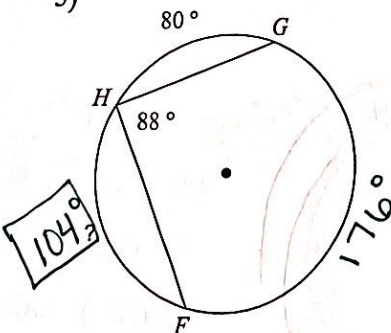


$\frac{1}{2}(98)$

4)

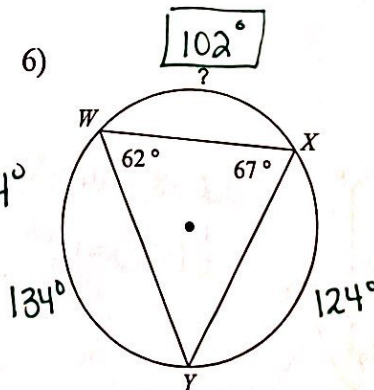


5)

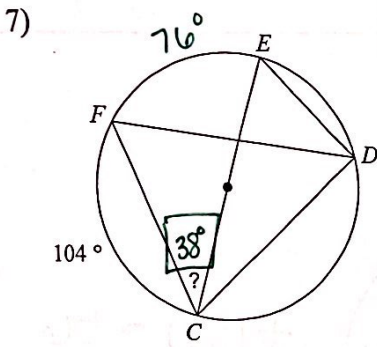


$88 \cdot 2 = 176$
 $360 - 176 - 80 = 104^\circ$

6)

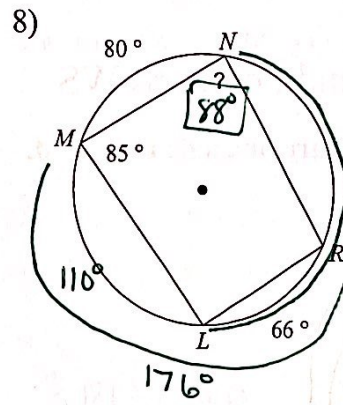


$67 \cdot 2 = 134^\circ$
 $62 \cdot 2 = 124^\circ$
 $360 - 134 - 124 = 102^\circ$



$$180 - 104 = 76$$

$$\frac{1}{2}(76) = 38^\circ$$

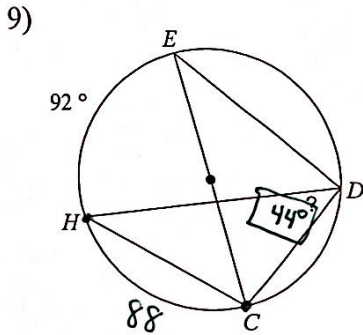


$$85 \cdot 2 = 170$$

$$360 - 170 - 80 = 110^\circ$$

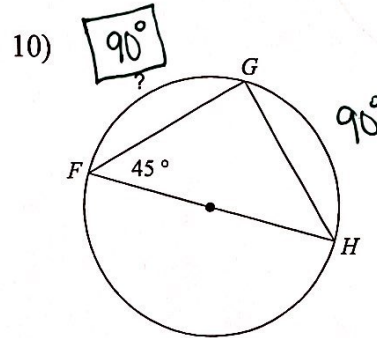
$$170^\circ + 110 + 66 = 176^\circ$$

$$\frac{1}{2}(176) = 88$$



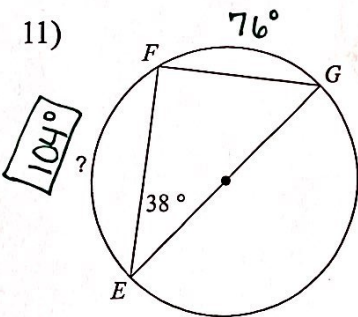
$$180 - 92 = 88$$

$$\frac{1}{2}(88) = 44$$



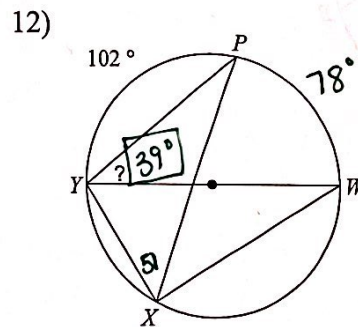
$$45 \cdot 2 = 90^\circ$$

$$180 - 90 = 90^\circ$$



$$38 \cdot 2 = 76$$

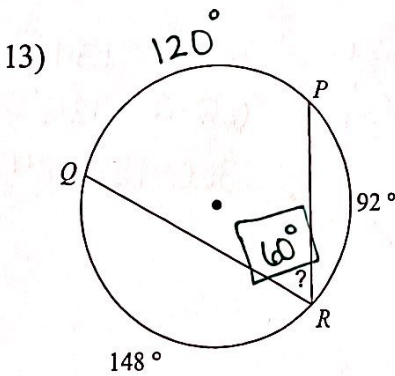
$$180 - 76 = 104$$



$$\frac{1}{2}(102) = 51$$

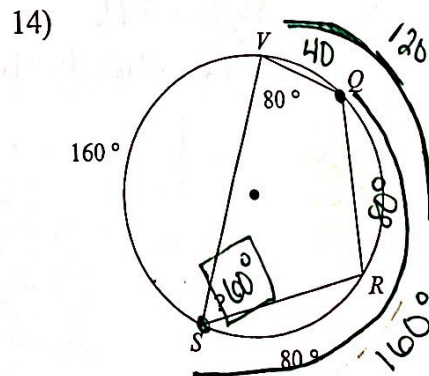
$$180 - 102 = 78^\circ$$

$$\frac{1}{2}(78) = 39^\circ$$



$$360 - 92 - 148 = 120$$

$$\frac{1}{2}(120) = 60^\circ$$



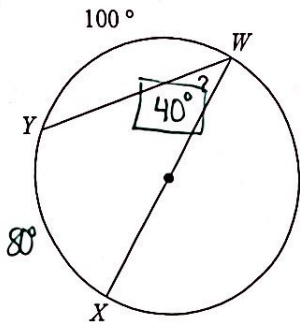
$$80 \cdot 2 = 160$$

$$360 - 160 - 80 - 80 = 40$$

$$40 + 80 = 120$$

$$\frac{1}{2}(120) = 60$$

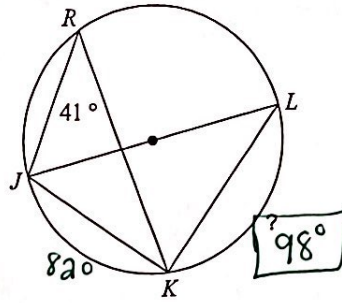
15)



$$180 - 100 = 80$$

$$\frac{1}{2}(80) = 40^\circ$$

16)

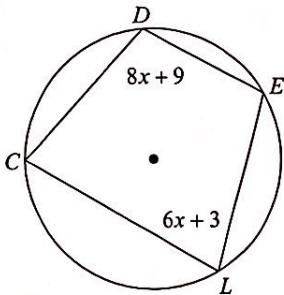


$$41 \cdot 2 = 82$$

$$180 - 82 = 98^\circ$$

Solve for x.

17)



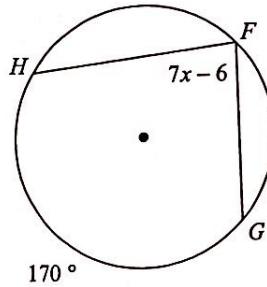
$$8x + 9 + 6x + 3 = 180$$

$$14x + 12 = 180$$

$$14x = 168$$

$$x = 12$$

18)



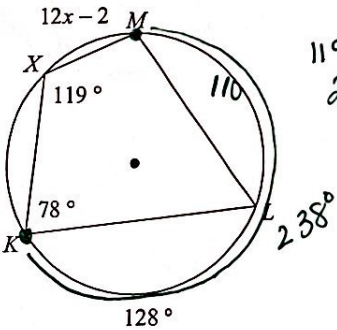
$$7x - 6 = \frac{1}{2}(170)$$

$$7x - 6 = 85$$

$$7x = 91$$

$$x = 13$$

19)



$$119 \cdot 2 = 238$$

$$238 - 128 = 110$$

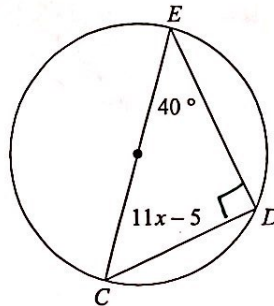
$$12x - 2 + 110 = 2 \cdot 78$$

$$12x + 108 = 156$$

$$12x = 48$$

$$x = 4$$

20)



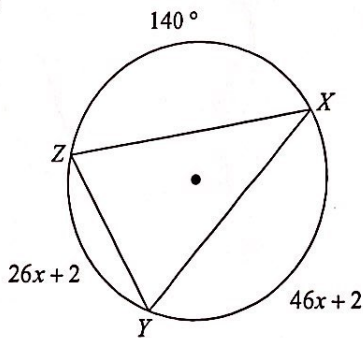
$$40 + 90 + 11x - 5 = 180$$

$$125 + 11x = 180$$

$$11x = 55$$

$$x = 5$$

21)



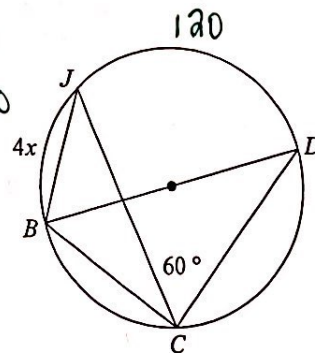
$$26x + 2 + 46x + 2 + 140 = 360$$

$$72x + 144 = 360$$

$$72x = 216$$

$$x = 3$$

22)



$$4x + 120 = 180$$

$$4x = 60$$

$$x = 15$$