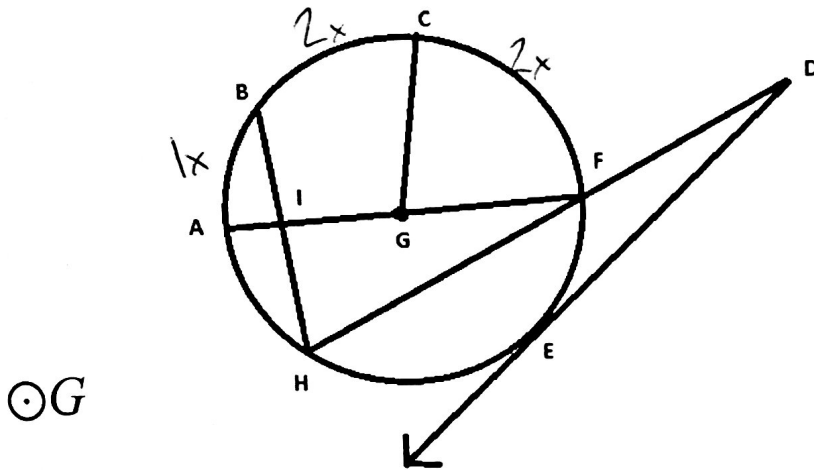


Name: _____
 Date: _____
 Class: _____

Geometry
 Unit 10
 HW 10-1



- 1) In the above circle list one example for each of the following:
- a) secant \overline{DH}
 - b) radius \overline{AG}
 - c) major arc \widehat{ACE}
 - d) tangent \overline{DE}
 - e) diameter \overline{AF}
 - f) minor arc \widehat{FC}
 - g) chord \overline{BH}
 - h) arc \widehat{AB}

2) In the above circle if $\widehat{AB} : \widehat{BC} : \widehat{CF} = 1 : 2 : 2$ find $m\widehat{BC}$.

$$1x + 2x + 2x = 180$$

$$5x = 180$$

$$x = 36$$

$$m\widehat{BC} \rightarrow 2(36) = 72^\circ$$

3) If the endpoints of the diameter of a circle are $(-2, 4)$ and $(5, -8)$ what would the center of the circle be?

$$-2 + 5 = 3/2 = 1.5$$

$$4 + (-8) = -4/2 = -2$$

$(1.5, -2)$

4) In #3 what would the length of the radius be?

$$7^2 + 12^2 = x^2$$

$$x = \sqrt{193} \rightarrow r$$

5) If the endpoints of a radius of a circle are $(-2, -4)$ and $(0, 2)$ what would the length of the diameter of this circle be?

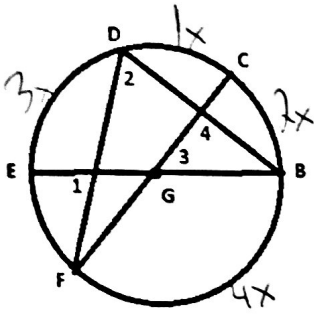
$$2^2 + 6^2 = x^2$$

$$x = \sqrt{40} \text{ radius}$$

$$2\sqrt{40} \text{ diameter}$$

$\frac{1}{2}$ circle

6)



In circle G, $\widehat{BC} : \widehat{DC} : \widehat{ED} : \widehat{BF} = 2 : 1 : 3 : 4$, find $m\widehat{BC}$

$$2x + 1x + 3x = 180$$

$$6x = 180$$

$$x = 30$$

$$m\widehat{BC} \rightarrow 2(30) = 60^\circ$$

7) Using the diagram for #6 - In circle G, $\widehat{BF} : \widehat{EF} : \widehat{ED} = 8 : 2 : 3$, find $m\widehat{BD}$

$\frac{1}{2}$ circle

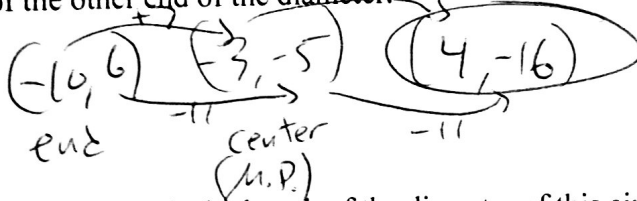
$$8x + 2x = 180$$

$$10x = 180$$

$$x = 18$$

$$\begin{array}{r} 3(18) = 54 \\ m\widehat{ED} + m\widehat{BD} = 180 \\ -54 \qquad \qquad -54 \\ \hline m\widehat{BD} = 126^\circ \end{array}$$

8) If the center of a circle is at $(-3, -5)$ and one end of the diameter is located at $(-10, 6)$ what is the location of the other end of the diameter?



9) In the circle in number 8, what is the length of the diameter of this circle?

$$14^2 + 22^2 = x^2$$

$$x = 50$$