Geometry

8.7: Homework WS

Name:_____

In # 1-6, complete the statement with one of the words in the box to the right.

diameter
circumference
circle
radius
radii
center

1. A circle is the set of points in a plane that are the same distance from a given point called the _____ of the circle.
2. The distance from the center to a point on the circle is the _____
3. The distance across the circle, through the center, is the _____
4. The _____ of a circle is the distance around the circle.
5. An angle whose vertex is the _____ of a circle is a central angle of the circle.
6. A region of a circle determined by two _____ and a part of the circle is called a sector of the circle.

Circumference of a circle: $2\pi r \text{ or } \pi d$

Arc length: $\frac{arc\ length}{circumference\ of\ circle} = \frac{measure\ of\ central\ angle}{360}$

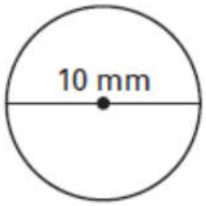
Area of a circle: πr^2

Area of a sector: $\frac{area\ of\ sector}{area\ of\ entire\ circle} = \frac{measure\ of\ central\ angle}{360}$

Find the <u>exact AND approximate</u> circumference of the circle. Round your answers to the nearest tenth.

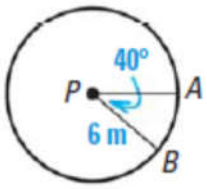
7.

8.

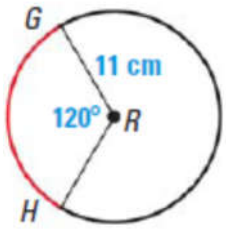


Find the length of arc AB.

9.



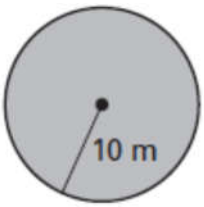
10.



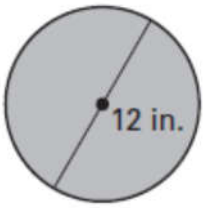
Circumference of a circle: $2\pi r \text{ or } \pi d$	**Arc length:** $\frac{arc\ length}{circumference\ of\ circle} = \frac{measure\ of\ central\ angle}{360}$
Area of a circle: πr^2	**Area of a sector:** $\frac{area\ of\ sector}{area\ of\ entire\ circle} = \frac{measure\ of\ central\ angle}{360}$

Find the <u>exact AND approximate</u> area of the circle. Round your answers to the nearest tenth.

11.

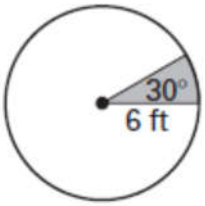


12.



Find the area of the shaded sector. Start by finding the area of the circle. Round your answer to the nearest tenth.

13.



14.