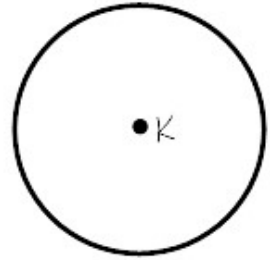# Circle Vocabulary and Central Angles: Notes

1. A _____ is the set of all points _____ from a given point, called
   the _____.
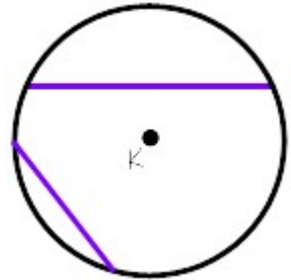
   A _____ is named by its center point. The circle shown here would be
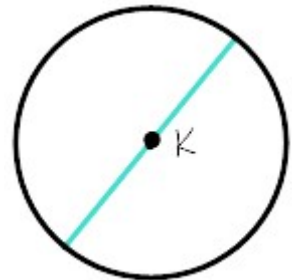   called _____. Notation: _____

2. The _____ is the distance from the center point to any point on the
   circle. The _____ is a line segment and will have one endpoint at the
   _____ and the other endpoint on the _____ of the circle.
   Every _____ in the same circle will have the same length.

3. A _____ is any line segment that has it's _____ on the
   circumference of the circle.

4. A _____ is a special type of chord that passes through the
   _____ of the circle. It is the _____ across the circle, and will
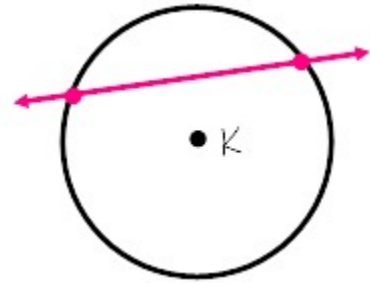   always be the _____ chord in a circle.

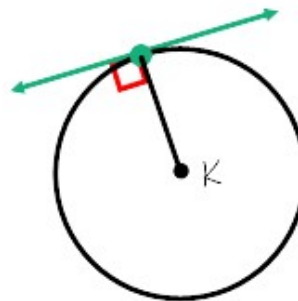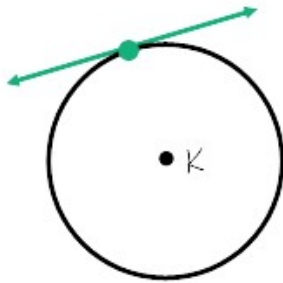Special relationships: The radius will always be _____ the length
of the diameter.

The diameter will always be _____ the length of the radius.

Formulas:

5. A _____ line intersects the circle at two points.

6. A _____ line intersects the circle at exactly one point. This point is called the point of _____. If you draw a radius from the point of _____, a right angle is always formed at their intersection.

7. **You Try:** Using our new vocabulary words, decide which word best describes the requested line or segment:
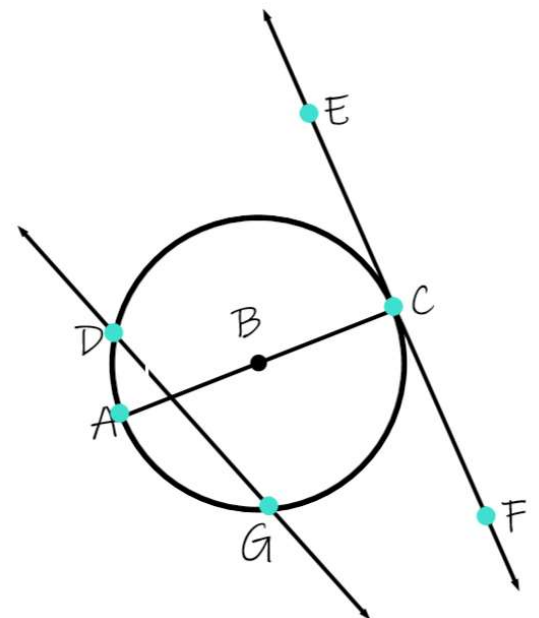
a. $\overline{AB}$ _____   b. $\overline{AC}$ _____   c. $\overline{DG}$ _____

d. $\overrightarrow{DG}$ _____   e. $\overleftrightarrow{EF}$ _____
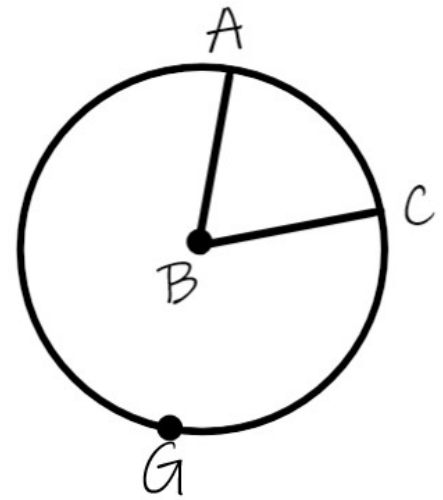
f. C _____   g. B _____

h. If $\overline{AB}$ = 7, then $\overline{AC}$ = _____.

i. $\overline{AC}$ and $\overleftrightarrow{EF}$ meet to form a _____ angle.

8. **Recall:** How many degrees are in a circle? _____.

9. A _____ angle is an angle with it's vertex at the _____ point of the circle. ∠_____ is a central angle. **A central angle will always be equal to its arc!**

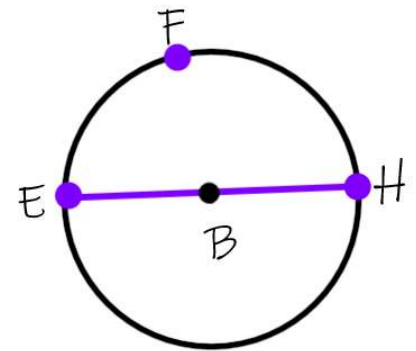10. A _____ arc is an arc with a measure that is less than 180°

⌢__ is a minor arc. You use _____ letters to name a minor arc.

11. A _____ arc is an arc with a measure that is greater than 180°.

⌢__ is a major arc. You must use _____ letters to name a major arc.

12. A _____ is an arc that is exactly 180°. A _____ is _____ a circle.

⌢__ is a semicircle.

13. Important things to look for when dealing with angles and arcs in circles:

Vertical angles are always _____. Linear Pairs are always _____. All the arcs of a circle will add up to be _____. The arcs that form a semicircle will add up to be _____.

14. **You try!**

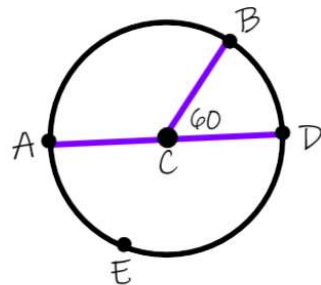C is the center point. $\overline{AD}$ is a diameter.   F is the center point. $\overline{GI}$ and $\overline{JH}$ are diameters.

a. $m\overset{\frown}{AB}$ = _____

b. $m\overset{\frown}{BD}$ = _____

c. $m\angle ACB$ = _____

d. $m\overset{\frown}{AED}$ = _____

e. $m\angle GFJ$ = _____

f. $m\overset{\frown}{GH}$ = _____

g. $m\overset{\frown}{HI}$ = _____

h. $m\overset{\frown}{JIH}$ = _____