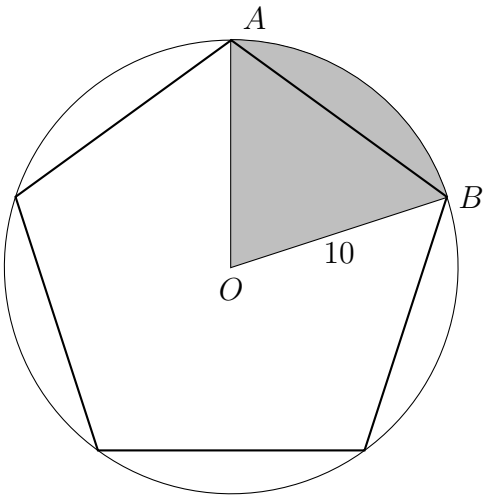
8.3 Do Now: Density

1. A pentagon is inscribed in circle O, as shown below. The circle has radius $r = 10$.

   (a) Find the area of the sector AOB.

   (b) Find the perimeter of the sector AOB.



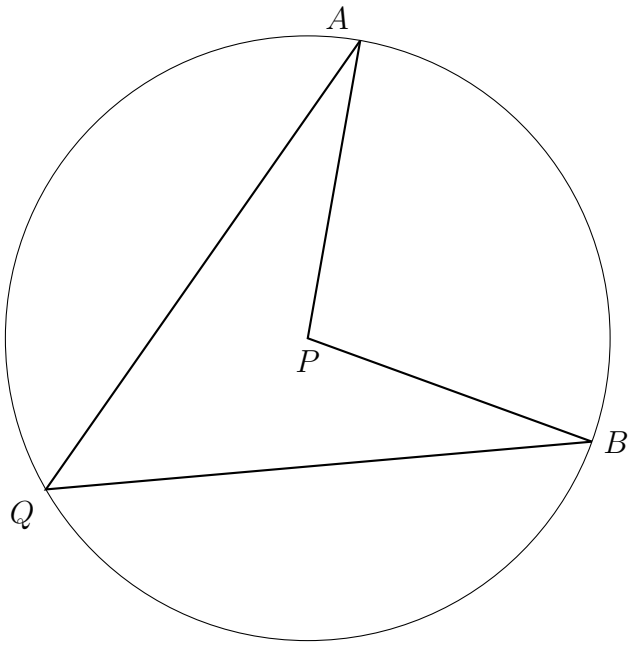
Estimating and measuring

2. Given the circle with center P with central angle $\angle APB$ and inscribed angle $\angle AQB$. Using a protractor, measure each angle.

   (a) $m\angle APB =$

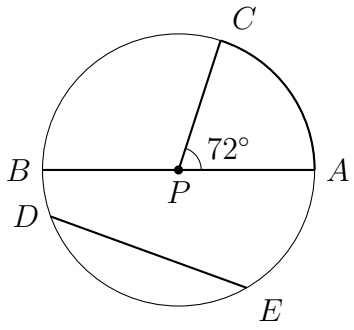
   (b) $m\angle AQB =$

   (c) What do you think is the ratio of the central angle to the inscribed angle?



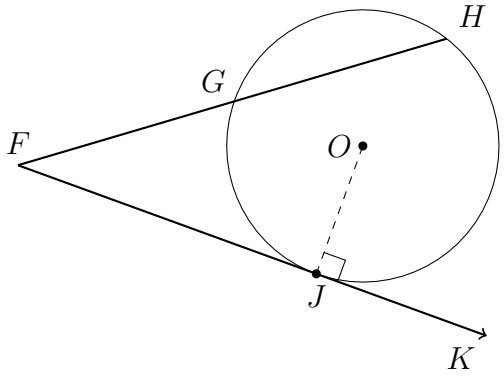
Vocabulary self-assessment: Circles (fill in the blank with the correct term)

3. **Internal line segments:** Circle with center at point P, as shown.



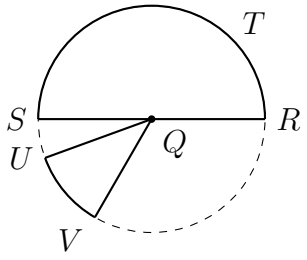
- $\overline{AB}$ _____
- $\overline{CP}$ _____
- $\overline{DE}$ _____
- $\angle APC$ _____
- $\overline{\overset{\frown}{AC}}$ _____

4. **External lines:** Circle with center at point O, at right.



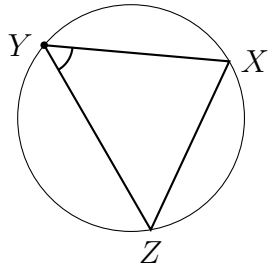
- $\overline{FGH}$ _____
- $\overline{OJ}$ _____
- $\overline{FJK}$ _____
- J _____

5. **Areas:** Circle with center at point Q.



- $\overline{RS}$ _____
- RST _____
- QUV _____

6. **Polygons and angles in circles:**



- $\triangle XYZ$ _____
- $\angle XYZ$ _____