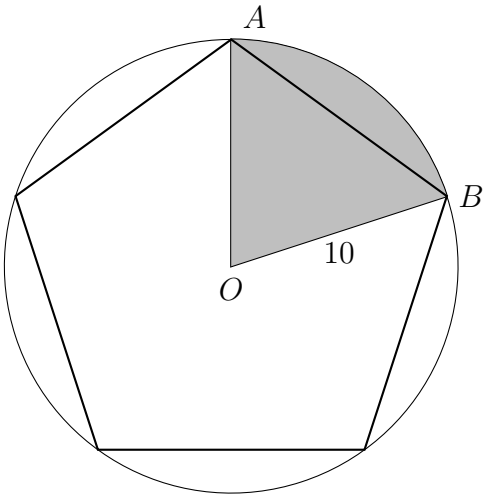
## 11.1 Classwork: Circle

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 $AOB$.



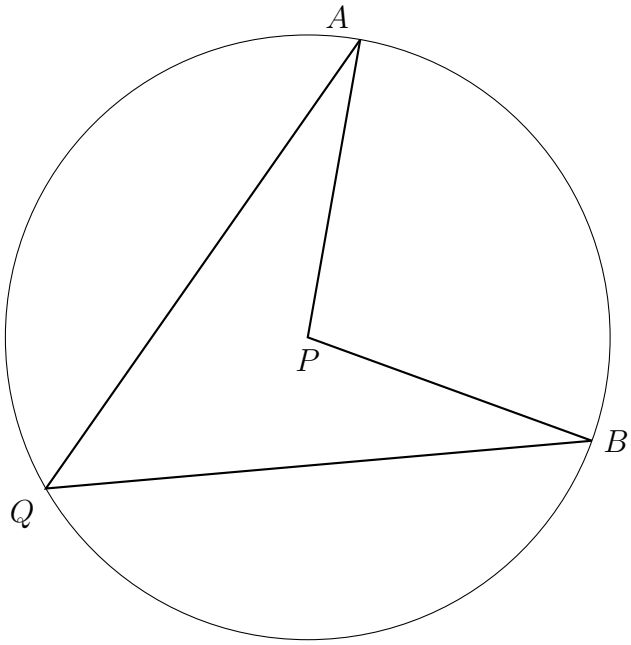

### Estimating and measuring

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

   (a) $m\angle APB =$

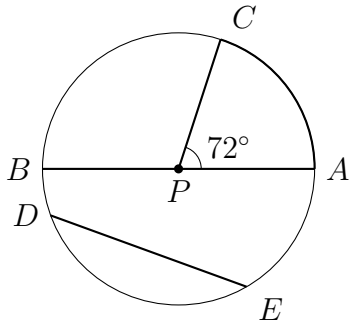
   (b) $m\angle AQB =$

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



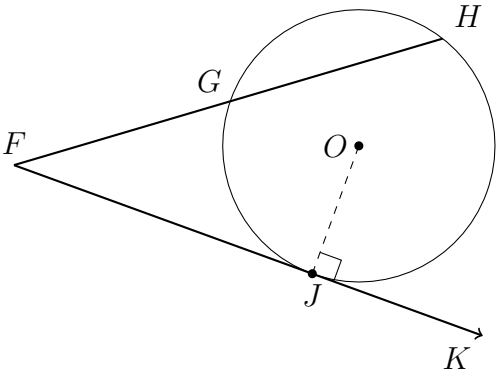
**Vocabulary self-assessment: Circles (fill in the blank with the correct term)**

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



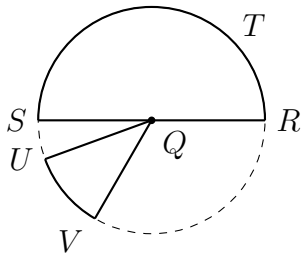

- $\overline{AB}$ _____
- $\overline{CP}$ _____
- $\overline{DE}$ _____
- $\angle APC$ _____
- $\overline{\overset{\frown}{AC}}$ _____

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



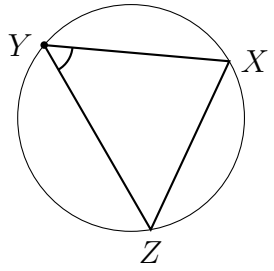

- $\overline{FGH}$ _____
- $\overline{OJ}$ _____
- $\overline{FJK}$ _____
- $J$ _____

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




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

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




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