9.6 Homework: Circle angles

1. Write down the formula for the circumference of a circle given the radius.

2. Write down the formula for the area of a circle.

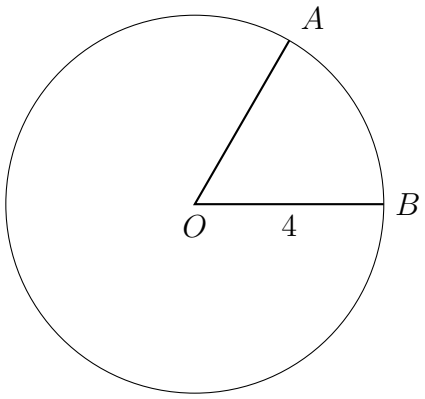
3. Given circle O with radius $OB = 4$.

   (a) Find the circumference of circle O.

   (b) Find its area.

   (c) Given that $m\angle AOB = 60°$, find $m\widehat{AB}$.

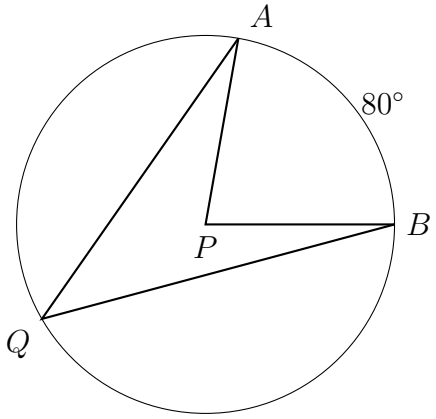
   (d) Find the area of the sector AOB.



4. Given circle P with $m\widehat{AB} = 80°$.

   (a) Write down the $m\angle APB$.

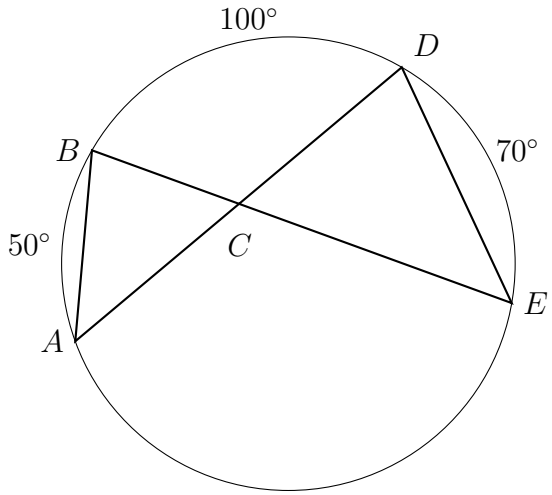
   (b) Find the $m\angle AQB$.



5. Given circle O with chords $\overline{AD}$ and $\overline{BE}$ intersecting at C, as shown in the diagram. Given $m\widehat{AB} = 50°$, $m\widehat{BD} = 100°$, and $m\widehat{DE} = 70°$.

   (a) Find the $m\angle BAD$.

   (b) Find the $m\angle ACB$.



6. The secants $\overline{ABC}$ and $\overline{ADE}$ intersect the circle O, as shown in the diagram. Given $m\widehat{BD} = 30°$ and $m\widehat{CE} = 140°$.

   (a) Find the $m\angle CDE$.

   (b) Find the $m\angle BCD$.

   (c) Find the $m\angle A$.