Handout 2: Better Calculate Than Calcu-never Answers
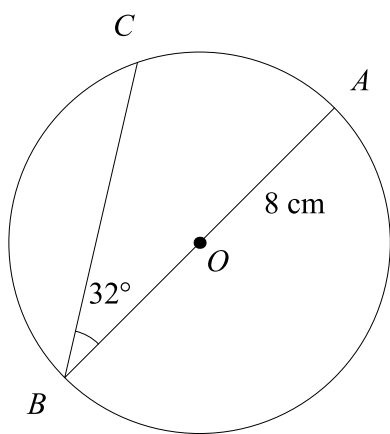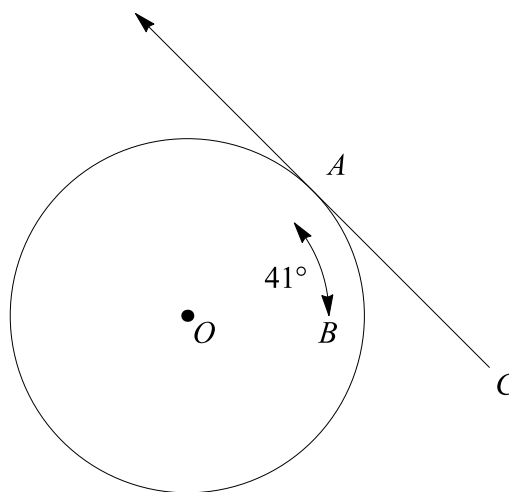

Figure 1

Figure 2

For questions 1 and 2, find the exact circumference of the given circle.

1. $\odot O$ has radius 18 m.

   36π m

2. $\odot P$ has radius 7.5 cm.

   15π m

3. What is the exact radius of a circle with circumference 28π cm?

   14 cm

For questions 4 and 5, find the length of an arc with the given properties. Round your answer to two decimal places.

4. Measure 48°, radius 10 km.

   8.38 km

5. Measure 340°, radius 18 cm.

   106.81 cm

6. Find the degree measure of an arc with length 6 m and radius 1 m. Round your answer to the nearest degree.

   344°

7. What is the radius of an arc with length 14 km and measure 108°? Round your answer to two decimal places.

    7.43 km

8. What is the measure of the arc intercepted by an inscribed angle of 85°?

    170°

9. In Figure 1, $\overline{AB}$ is a diameter of $\odot O$, point C is on $\odot O$, $AO = 8$ cm, and $m\angle ABC = 32°$. What is the length of arc AC? Round your answer to two decimal places.

    8.93 cm

10. In Figure 2, $\overline{AC}$ is tangent to $\odot O$ at A, OC intersects $\odot O$ at B, and the measure of arc AB is 41°. What is $m\angle ACB$?

    49°