Mid-Unit Review

LESSON

6.1 **1.** A circle has radius 3.6 cm. What is its diameter?

2. A circle has diameter 3.6 cm. What is its radius?

3. a) Draw a large circle.
Label its centre C.
Mark points P, Q, and R on the circle.
Join P, Q, and R to form $\triangle PQR$.
Join QC and RC. These line segments form 2 angles at C.
Measure $\angle QPR$ and the smaller $\angle QCR$.
How are these angles related?

b) Repeat part a for a different circle. Is the relationship in part a still true? Explain.

6.2 **4.** The face of a penny has radius 9.5 mm.

a) Estimate the circumference of the penny.

b) Calculate the circumference. Give the answer to the nearest tenth of a millimetre.

5. An auger is used to drill a hole in the ice, for ice fishing.
The diameter of the hole is 25 cm.
What is the circumference of the hole?

6. Explain how you could calculate the circumference of a paper plate.

7. There is a clock on the Peace Tower in Ottawa. The circumference of the clock face is approximately 15.02 m.

a) Estimate the diameter and radius of the clock face.

b) Calculate the diameter and radius of the clock face to the nearest centimetre.

8. a) How is the circumference of a circle with radius 9 cm related to the circumference of a circle with diameter 9 cm?

b) Draw both circles in part a.

6.3 **9.** The radius of a circular tray is 14.4 cm. What is its area to the nearest square millimetre?

10. The diameter of a circle is 58 m. What is its area to the nearest square centimetre?

11. A circular table has radius 56 cm.
A tablecloth covers the table.
The edge of the cloth is 10 cm below the tabletop.
What is the area of the tablecloth?

12. a) How is the area of a circle with radius 6 cm related to the area of a circle with diameter 6 cm?

b) Draw both circles in part a.
Do the diagrams justify your answer in part a? Explain.