

Chapter 8 Mixed Geometry and Measurement Problem Solving

Worksheet C Mixed Practice and Application

Name: _____ Grade: _____ Date: _____

Use $\pi \approx 3.14$ where needed.

1. Classroom Floor

A classroom floor is 9 m long and 7 m wide.

a. How much flooring is needed?

b. How much baseboard is needed around the room?

2. Circular Garden

A circular garden has diameter 6 m.

a. How much edging is needed around it?

b. How much mulch is needed to cover it?

3. Open Storage Box

An open-top storage box is 12 cm long, 8 cm wide, and 5 cm high.

a. Find the outside surface area.

b. Find the volume.

4. Cylindrical Container

A cylindrical container has no top.

It has diameter 12 cm and height 20 cm.

a. Find the outside surface area.

b. Find the volume.

c. Convert the volume to litres.

5. Ramp

A ramp rises 6 m and has a horizontal run of 8 m.
Find the ramp length.

6. Student Error

A student says:

“The cylinder has diameter 12 cm, so I will use 12 cm as the radius.”

Explain the mistake.

7. Decision Explanation

A box is 15 cm by 10 cm by 6 cm.

One question asks how much paper is needed to wrap it.

Another question asks how much rice it can hold.

Explain why the two questions need different measurements.
