

Chapter 7 Volume of Pyramids Cones Spheres and Capacity

Worksheet C Mixed Practice and Application

Name: _____ Grade: _____ Date: _____

Use $\pi \approx 3.14$.

1. Sand Pyramid

A sand pile is shaped like a square pyramid with base side 5 m and vertical height 3 m.
Find its volume.

2. Cone Container

A cone-shaped container has diameter 8 cm and vertical height 15 cm.
a. Find the radius.

b. Find the volume.

3. Ball Volume

A ball has diameter 18 cm.

a. Find the radius.

b. Find the volume.

4. Capacity Conversion

A container has volume 3750 cm^3 .

a. What is the capacity in mL?

b. What is the capacity in L?

5. Slant Height Error

A cone has radius 6 cm, vertical height 8 cm, and slant height 10 cm.

A student uses 10 cm in the volume formula.

Explain the mistake and find the correct volume.

6. Formula Choice

A student uses the cylinder formula to find the volume of a cone with the same radius and height.

a. Will the answer be too small, correct, or too large?

b. Explain why.

c. Find the cone volume if the matching cylinder volume is 300 cm^3 .
