Name: _____   Date: _____

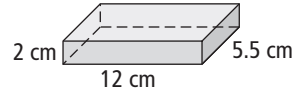# 7 Practice Test

V = area of base × height of prism
Volume of rectangular prism: $V = l \times w \times h$
Volume of triangular prism: $V = (b \times h \div 2) \times h$
Volume of a cube: $V = s^3$ or $V = s \times s \times s$
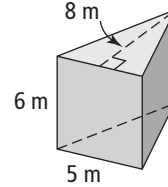
For #1 to #3, choose the correct answer.

1. What is the volume of the right rectangular prism?

    A 101 cm³   **B** 126 cm³
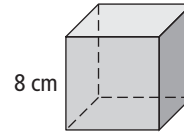   **C** 132 cm³   **D** 144 cm³

    2 cm   5.5 cm
    12 cm

2. What is the volume of the right triangular prism?

    A 120 m³   **B** 180 m³
    C 240 m³   **D** 480 m³

    8 m
    6 m
    5 m

3. What is the volume of the cube?

    A 64 cm³   **B** 72 cm³
    C 384 cm³   **D** 512 cm³
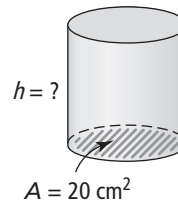
    8 cm

Complete the statements in #4 and #5.

4. A right rectangular prism is 3 cm by 4 cm by 6 cm.

    4 cm
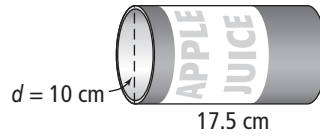   6 cm   3 cm
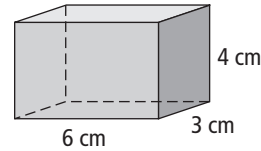
    The volume of the prism is _____.

5. The area of the base of a right cylinder is 20 cm².
    The volume of the cylinder is 60 cm³.
    What is the height?

    h = ?
    A = 20 cm²

    The height of the cylinder is _____.

Name: _____ Date: _____

Short Answer

6. Ian knocked over a full can of apple juice. What volume of juice did he spill?

$V = \pi \times r^2 \times h$
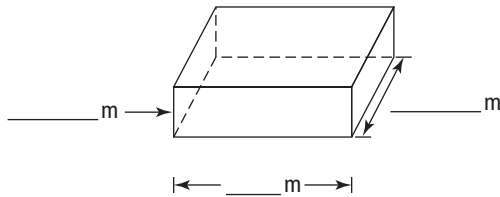
$d = 10$ cm

17.5 cm

Sentence: _____

7. Yuri is building a square concrete patio that is 6 m wide, 6 m long, and 0.15 m high.

a) What volume of concrete will he need?

_____ m

_____ m

_____ m

b) Concrete costs $100.00/m³. How much will it cost to make the patio? Do not include taxes.

Volume of concrete × cost of 1 m³

8. Which container holds more jelly beans?

$r = 7$ cm   14 cm

80 cm

80 cm

20 cm
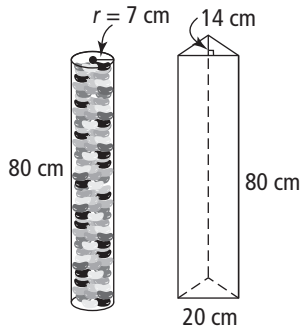
Cylinders and triangular prisms have different volume formulas.
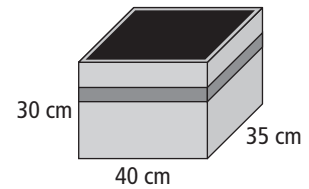
← Formula →

← Substitute →

← Solve →

Sentence: _____

9. Every classroom in a school has a recycling bin for paper.

   a) What volume of paper can each bin hold?

        Each bin holds _____ of paper.

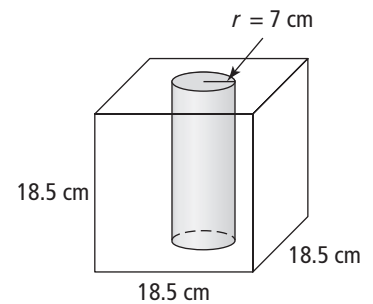   **b)** If there are 14 classrooms in the school, how much paper can be collected in total?

        Altogether, the 14 bins can hold _____ of paper.

10. Tiki is making a cube-shaped candleholder.
The candle fits in a hollow cylinder inside the cube.
How much material will she need to make the candleholder?

Volume of cube:

Volume of cylinder:

Volume of candleholder:

        The amount of material needed to make the candleholder is _____.