

# Study Guide

Module 5

Date: \_\_\_\_\_

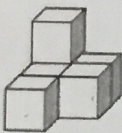
1 What is the volume of one unit cube?

1 cubic unit

2 Steve packed a box completely with unit cubes that each have a side length of 1 centimeter. The box has a volume of 36 cubic centimeters. How many unit cubes does Andy pack into the box?

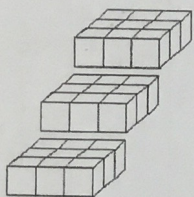
36 cm<sup>3</sup>

3 What is the volume of the shape below?



6 cubic units

4 What is the volume of each layer? What is the total volume with all layers stacked together?



9 units

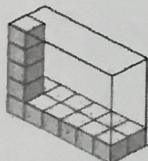
27 cubic units

5 Find the area of a rectangle with the following dimensions:

$$5\frac{4}{6} \text{ in.} \times 4\frac{3}{5} \text{ in.}$$

$$\frac{34}{6} \times \frac{23}{5} = \frac{782}{30}$$

6 How many more cubes are required to completely fill the rectangular prism below? What are the dimensions and total volume of the prism?

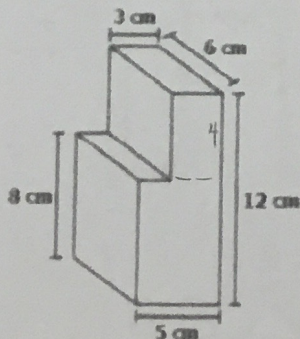


$$\begin{array}{r} 60 \\ - 16 \\ \hline 44 \end{array}$$

$$6 \times 2 \times 5$$

$$V = 60$$

7 Find the total volume of the shape.

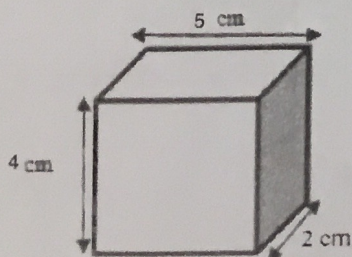


$$3 \times 6 \times 4 = 72$$

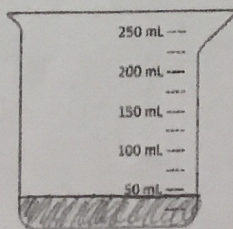
$$8 \times 5 \times 6 = 240$$

$$\frac{\quad}{\quad} 312 \text{ cm}^3$$

8 The box below is filled with sand. Shade the beaker to show how many milliliters of sand is in the box.



$$4 \times 5 \times 2 = 40 \text{ cm}^3$$



40 mL

Write an "X" under all of the shapes that have the properties listed.

9.

| Properties                                  | Quadrilateral | Trapezoid | Parallelogram | Rectangle | Rhombus | Square | Kite |
|---|---------------|-----------|---------------|-----------|---------|--------|------|
| has exactly 4 sides                         | X             | X         | X             | X         | X       | X      | X    |
| has at least 1 pair of parallel sides       |               | X         | X             | X         | X       | X      |      |
| has 2 pair of parallel sides                |               |           | X             | X         | X       | X      |      |
| has 4 90° angles                            |               |           |               | X         |         | X      |      |
| has 4 equal sides                           |               |           |               |           | X       | X      |      |
| opposite sides are equal lengths            |               |           | X             | X         | X       | X      |      |
| 2 pair of adjacent sides with equal lengths |               |           |               |           | X       | X      | X    |

10. Complete the hierarchy flowchart using the word bank.

Square  
Parallelogram  
Rectangle

Trapezoid  
Rhombus  
Quadrilaterals

