

Name _____ Date _____

**Skills Maintenance****Properties****Activity 1**

Look at the general statement and tell what property is being demonstrated in each problem.

Model

$$3(x + 4) = 3x + 12$$

Distributive Property, $n(a + b) = na + nb$

1. $5 + 0 = 5$ _____

2. $5 \cdot 0 = 0$ _____

3. $5 + 6 = 6 + 5$ _____

4. $5 + -5 = 0$ _____

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Problem-Solving Activity

Finding the Volume of Complex Objects

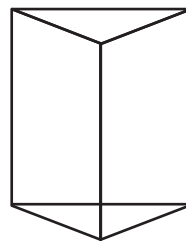
Look at each of the shapes and select the correct volume formula for it.
Then find the volume.

1. What is this shape's volume formula? (circle one)

(a) $V = \text{Base} \cdot \text{height}$

(b) $V = \frac{1}{3} \text{Base} \cdot \text{height}$

(c) $V = \frac{4}{3} \pi r^3$



Compute the volume of this shape if it has a Base of 4 cm^2 and a height of 10 cm . _____

Show your work here.

2. What is this shape's volume formula? (circle one)

(a) $V = \text{Base} \cdot \text{height}$

(b) $V = \frac{1}{3} \text{Base} \cdot \text{height}$

(c) $V = \frac{4}{3} \pi r^3$

Compute the volume of this shape if it has a Base of 2 cm^2 and a height of 6 cm . _____

Show your work here.

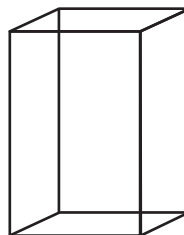
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3. What is this shape's volume formula? (circle one)

(a) $V = \text{Base} \cdot \text{height}$

(b) $V = \frac{1}{3} \text{Base} \cdot \text{height}$

(c) $V = \frac{4}{3} \pi r^3$



Compute the volume of this shape if it has a Base of 8 cm^2 and a height of 7 cm . _____

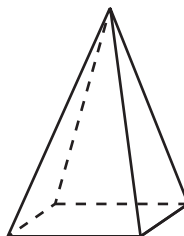
Show your work here.

4. What is this shape's volume formula? (circle one)

a. $V = \text{Base} \cdot \text{height}$

b. $V = \frac{1}{3} \text{Base} \cdot \text{height}$

c. $V = \frac{4}{3} \pi r^3$



Compute the volume of this shape if it has a Base of 4 cm^2 and a height of 11 cm . _____

Show your work here.

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 **Problem-Solving Activity**
Finding the Volume of Complex Objects

Sketch a picture of a polyhedron that uses two or more of the shapes from Questions 1–4. Find the volume of the polyhedron using the dimensions and measurements you know.

Sketch your compound shape here.

Find your shape's volume. Make sure to look for a pattern when you determine the total volume. Think carefully about the parts of the polyhedron that you cannot see. Make sure that you can explain how you figured out the volume of the polyhedron. Be able to describe what strategies you used to find the volume.

What is its volume? _____

 **Reinforce Understanding**
Use the mBook *Study Guide* to review lesson concepts.