



# Volume of Rectangular Prisms

Name: \_\_\_\_\_

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

Grade: Grade 5

## Part A: Fill in the Blank

Write the missing word or number on each line.

1. The formula for the volume of a rectangular prism is  $V = l \times w \times$  \_\_\_\_\_.
2. A small cube with side length 1 unit used to measure volume is called a \_\_\_\_\_.
3. Volume is measured in \_\_\_\_\_ units such as  $\text{cm}^3$  or  $\text{in}^3$ .
4. A rectangular prism has three \_\_\_\_\_: length, width, and height.
5. A \_\_\_\_\_ is a 3D shape with six rectangular faces.
6. A prism  $10 \text{ cm} \times 5 \text{ cm} \times 2 \text{ cm}$  has a volume of \_\_\_\_\_  $\text{cm}^3$ .
7. The volume of a cube with side length 4 m is \_\_\_\_\_  $\text{m}^3$ .
8. If each layer has 8 unit cubes and there are 6 layers, the volume is \_\_\_\_\_ cubic units.
9. Doubling the height of a rectangular prism \_\_\_\_\_ its volume.

## Part B: Matching

Match each item on the left to the correct answer on the right.

1. Match each item to its correct answer.

$3 \text{ cm} \times 4 \text{ cm} \times 5 \text{ cm}$	→ _____	$100 \text{ cm}^3$
$6 \text{ cm} \times 2 \text{ cm} \times 7 \text{ cm}$	→ _____	$84 \text{ cm}^3$
$8 \text{ cm} \times 3 \text{ cm} \times 3 \text{ cm}$	→ _____	$60 \text{ cm}^3$
$5 \text{ cm} \times 5 \text{ cm} \times 4 \text{ cm}$	→ _____	$72 \text{ cm}^3$

## Answer Key · Volume of Rectangular Prisms · Grade: Grade 5

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### Part A: Fill in the Blank

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Write the missing word or number on each line.

1. The formula for the volume of a rectangular prism is  $V = l \times w \times h$  .
2. A small cube with side length 1 unit used to measure volume is called a unit cube .
3. Volume is measured in cubic units such as  $\text{cm}^3$  or  $\text{in}^3$ .
4. A rectangular prism has three dimensions : length, width, and height.
5. A rectangular prism is a 3D shape with six rectangular faces.
6. A prism  $10 \text{ cm} \times 5 \text{ cm} \times 2 \text{ cm}$  has a volume of 100  $\text{cm}^3$ .
7. The volume of a cube with side length 4 m is 64  $\text{m}^3$ .
8. If each layer has 8 unit cubes and there are 6 layers, the volume is 48 cubic units.
9. Doubling the height of a rectangular prism doubles its volume.

### Part B: Matching

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Match each item on the left to the correct answer on the right.

1. Match each item to its correct answer.

$3 \text{ cm} \times 4 \text{ cm} \times 5 \text{ cm}$	→ <u>60 <math>\text{cm}^3</math></u>	$100 \text{ cm}^3$
$6 \text{ cm} \times 2 \text{ cm} \times 7 \text{ cm}$	→ <u>84 <math>\text{cm}^3</math></u>	$84 \text{ cm}^3$
$8 \text{ cm} \times 3 \text{ cm} \times 3 \text{ cm}$	→ <u>72 <math>\text{cm}^3</math></u>	$60 \text{ cm}^3$
$5 \text{ cm} \times 5 \text{ cm} \times 4 \text{ cm}$	→ <u>100 <math>\text{cm}^3</math></u>	$72 \text{ cm}^3$