



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. A fish tank is $12 \text{ in} \times 6 \text{ in} \times 8 \text{ in}$. It can hold _____ in^3 of water.
2. A moving box is $3 \text{ ft} \times 2 \text{ ft} \times 4 \text{ ft}$. Its volume is _____ ft^3 .
3. When you halve the height of a prism, you _____ its volume.
4. A sandbox is 8 ft long, 6 ft wide, and 1 ft deep. It needs _____ ft^3 of sand to fill completely.
5. A cube with edge length 7 cm has a volume of _____ cm^3 .
6. A suitcase is $24 \text{ in} \times 16 \text{ in} \times 10 \text{ in}$. Its volume is _____ in^3 .
7. $V = B \times h$ means volume equals the area of the _____ times the height.
8. A prism has a volume of 180 cm^3 , a length of 9 cm, and a height of 5 cm. Its width is _____ cm.
9. A toolbox is $15 \text{ in} \times 8 \text{ in} \times 6 \text{ in}$. Its volume is _____ in^3 .

Part B: Matching

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

1. Match each container to its volume.

$4 \text{ ft} \times 3 \text{ ft} \times 5 \text{ ft}$	→ _____	42 ft^3
$6 \text{ ft} \times 6 \text{ ft} \times 1 \text{ ft}$	→ _____	32 ft^3
$3 \text{ ft} \times 7 \text{ ft} \times 2 \text{ ft}$	→ _____	60 ft^3
$8 \text{ ft} \times 2 \text{ ft} \times 2 \text{ ft}$	→ _____	36 ft^3

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

Part A: Fill in the Blank

Write the missing word or number on each line.

1. A fish tank is $12 \text{ in} \times 6 \text{ in} \times 8 \text{ in}$. It can hold 576 in^3 of water.
2. A moving box is $3 \text{ ft} \times 2 \text{ ft} \times 4 \text{ ft}$. Its volume is 24 ft^3 .
3. When you halve the height of a prism, you halve its volume.
4. A sandbox is 8 ft long, 6 ft wide, and 1 ft deep. It needs 48 ft^3 of sand to fill completely.
5. A cube with edge length 7 cm has a volume of 343 cm^3 .
6. A suitcase is $24 \text{ in} \times 16 \text{ in} \times 10 \text{ in}$. Its volume is 3840 in^3 .
7. $V = B \times h$ means volume equals the area of the base times the height.
8. A prism has a volume of 180 cm^3 , a length of 9 cm, and a height of 5 cm. Its width is 4 cm.
9. A toolbox is $15 \text{ in} \times 8 \text{ in} \times 6 \text{ in}$. Its volume is 720 in^3 .

Part B: Matching

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

1. Match each container to its volume.

$4 \text{ ft} \times 3 \text{ ft} \times 5 \text{ ft}$	→ <u>60 ft^3</u>	42 ft^3
$6 \text{ ft} \times 6 \text{ ft} \times 1 \text{ ft}$	→ <u>36 ft^3</u>	32 ft^3
$3 \text{ ft} \times 7 \text{ ft} \times 2 \text{ ft}$	→ <u>42 ft^3</u>	60 ft^3
$8 \text{ ft} \times 2 \text{ ft} \times 2 \text{ ft}$	→ <u>32 ft^3</u>	36 ft^3