



# Volume of Rectangular Prisms

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

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

Grade: Grade 5

## Part A: Multiple Choice

Circle the best answer for each question.

1. A shipping box is 12 in  $\times$  8 in  $\times$  6 in. How many 2-inch cubes fit inside?

- A) 72
- B) 48
- C) 36
- D) 288

2. A pool is 10 m  $\times$  4 m  $\times$  2 m. How many cubic meters of water does it hold?

- A) 60 m<sup>3</sup>
- B) 80 m<sup>3</sup>
- C) 40 m<sup>3</sup>
- D) 16 m<sup>3</sup>

3. A cereal box is 30 $\times$ 8 $\times$ 20 cm. A bowl holds 600 cm<sup>3</sup>. How many full bowls can be filled?

- A) 6
- B) 8
- C) 10
- D) 4

4. A sandbox is 6 ft  $\times$  4 ft  $\times$  1 ft. Sand costs \$3 per cubic foot. Total cost to fill?

- A) \$24
- B) \$72
- C) \$48
- D) \$36

## Part B: Fill in the Blank

Write the correct answer on each line.

1. A toy chest is 3 ft  $\times$  2 ft  $\times$  2 ft. It can hold \_\_\_\_\_ cubic feet of items.
2. A planter box is 40 cm  $\times$  20 cm  $\times$  15 cm. It needs \_\_\_\_\_ cm<sup>3</sup> of soil to fill.
3. A crate holds 180 in<sup>3</sup>. Each block is 3 $\times$ 2 $\times$ 1 in. The crate fits \_\_\_\_\_ blocks.
4. A fish tank is 24 in  $\times$  12 in  $\times$  10 in. Its volume is \_\_\_\_\_ in<sup>3</sup>.
5. A moving box is 2 ft  $\times$  2 ft  $\times$  3 ft. Three such boxes hold \_\_\_\_\_ ft<sup>3</sup> total.

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

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### Part A: Multiple Choice

Circle the best answer for each question.

1. A shipping box is  $12\text{ in} \times 8\text{ in} \times 6\text{ in}$ . How many 2-inch cubes fit inside?

- A) 72
- B) 48
- C) 36
- D) 288

2. A pool is  $10\text{ m} \times 4\text{ m} \times 2\text{ m}$ . How many cubic meters of water does it hold?

- A)  $60\text{ m}^3$
- B)  $80\text{ m}^3$
- C)  $40\text{ m}^3$
- D)  $16\text{ m}^3$

3. A cereal box is  $30 \times 8 \times 20\text{ cm}$ . A bowl holds  $600\text{ cm}^3$ . How many full bowls can be filled?

- A) 6
- B) 8
- C) 10
- D) 4

4. A sandbox is  $6\text{ ft} \times 4\text{ ft} \times 1\text{ ft}$ . Sand costs \$3 per cubic foot. Total cost to fill?

- A) \$24
- B) \$72
- C) \$48
- D) \$36

### Part B: Fill in the Blank

Write the correct answer on each line.

1. A toy chest is  $3\text{ ft} \times 2\text{ ft} \times 2\text{ ft}$ . It can hold 12 cubic feet of items.
2. A planter box is  $40\text{ cm} \times 20\text{ cm} \times 15\text{ cm}$ . It needs 12,000  $\text{cm}^3$  of soil to fill.
3. A crate holds  $180\text{ in}^3$ . Each block is  $3 \times 2 \times 1\text{ in}$ . The crate fits 30 blocks.
4. A fish tank is  $24\text{ in} \times 12\text{ in} \times 10\text{ in}$ . Its volume is 2,880  $\text{in}^3$ .
5. A moving box is  $2\text{ ft} \times 2\text{ ft} \times 3\text{ ft}$ . Three such boxes hold 36  $\text{ft}^3$  total.