



Volume of Rectangular Prisms

Name: _____

Date: _____

Grade: Grade 5

Part A: Fix the Sentence

Each sentence has an error. Rewrite it correctly on the line.

1. Fix the sentence: A fish tank 10 in long, 5 in wide, and 8 in tall holds 400 in² of water.

Rewrite: _____

2. Fix the sentence:

A rectangular prism 7 cm × 3 cm × 2 cm has a volume of 42 cm³ because 7 + 3 + 2 = 42.

Rewrite: _____

3. Fix the sentence:

A shoebox that is 12 in × 6 in × 4 in has the same volume as a box that is 12 in × 3 in × 4 in.

Rewrite: _____

Part B: Fill in the Blank

Write the missing word or number on each line.

1. A cereal box that is 8 in × 3 in × 12 in has a volume of _____ in³.
2. Volume is always measured in _____ units because it fills three-dimensional space.
3. A rectangular prism has a volume of 120 cm³. If the length is 10 cm and the width is 4 cm, the height is _____ cm.
4. A gift box is 5 in × 5 in × 5 in. Its volume is _____ in³.

Part C: Short Answer

Answer each question in one or two complete sentences.

1. A storage bin is 4 ft long, 2 ft wide, and 3 ft tall. Will 30 unit cubes that are each 1 ft³ fit inside? Explain.

2. Explain in your own words what happens to the volume of a rectangular prism when you double one of its dimensions.

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

Part A: Fix the Sentence

Each sentence has an error. Rewrite it correctly on the line.

1. Fix the sentence: A fish tank 10 in long, 5 in wide, and 8 in tall holds 400 in² of water.

Rewrite: **A fish tank 10 in long, 5 in wide, and 8 in tall holds 400 in³ of water.**

2. Fix the sentence:

A rectangular prism 7 cm × 3 cm × 2 cm has a volume of 42 cm³ because 7 + 3 + 2 = 42.

Rewrite: **A rectangular prism 7 cm × 3 cm × 2 cm has a volume of 42 cm³ because 7 × 3 × 2 = 42.**

3. Fix the sentence:

A shoebox that is 12 in × 6 in × 4 in has the same volume as a box that is 12 in × 3 in × 4 in.

Rewrite: **A shoebox that is 12 in × 6 in × 4 in has a greater volume than a box that is 12 in × 3 in × 4 in.**

Part B: Fill in the Blank

Write the missing word or number on each line.

- A cereal box that is 8 in × 3 in × 12 in has a volume of 288 in³.
- Volume is always measured in cubic units because it fills three-dimensional space.
- A rectangular prism has a volume of 120 cm³. If the length is 10 cm and the width is 4 cm, the height is 3 cm.
- A gift box is 5 in × 5 in × 5 in. Its volume is 125 in³.

Part C: Short Answer

Answer each question in one or two complete sentences.

1. A storage bin is 4 ft long, 2 ft wide, and 3 ft tall. Will 30 unit cubes that are each 1 ft³ fit inside? Explain.

No, because the bin's volume is $4 \times 2 \times 3 = 24 \text{ ft}^3$, which is less than 30 ft³.

2. Explain in your own words what happens to the volume of a rectangular prism when you double one of its dimensions.
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