

Introduction to Volume

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5th Grade Math Practice

Name: _____

Date: _____

Solve each problem. Show your work when needed.

1. Calculate the volume of a rectangular prism with length 4 cm, width 3 cm, and height 5 cm. $V = \underline{\hspace{2cm}}$

2. What is the volume of a box with dimensions 2 m (length), 3 m (width), and 4 m (height)? $V = \underline{\hspace{2cm}}$

3. A fish tank measures 6 ft long, 2 ft wide, and 3 ft high. What is its volume?

4. If a rectangular prism has a length of 5 in, a width of 2 in, and a height of 7 in, what is its volume?

5. Find the volume of a rectangular prism with length 10 cm, width 1 cm, and height 2 cm. $V = \underline{\hspace{2cm}}$

6. Circle the greater volume: $V = 45$ cubic inches or $V = 60$ cubic inches

7. If the length is doubled and the width is unchanged, how does the volume change? New volume = $\underline{\hspace{2cm}}$ (if original volume is 30)

8. A box can hold 48 cubic cm. If its height is 4 cm and its width is 3 cm, what is its length?

9. Volume can be measured in square units.

True False

10. Calculate the volume of a prism with length 8 m, width 3 m, and height 2 m. $V = \underline{\hspace{2cm}}$

11. If a rectangular prism has a volume of 100 cubic meters and a width of 5 meters, what is its height if the length is 4 meters?

12. Circle the greater volume: $V = 30$ cubic cm or $V = 25$ cubic cm

13. What is the next dimension if the length is 7 cm and the volume is 84 cubic cm? Height = $\underline{\hspace{2cm}}$

14. A rectangular box has a volume of 64 cubic inches. If the height is 4 inches and the width is 4 inches, what is the length?

15. What is the volume of a rectangular prism with a length of 12 cm, a width of 3 cm, and a height of 1 cm? $V = \underline{\hspace{2cm}}$

Answer Key

1. 60 2. 24 3. 36 4. 70 5. 20 6. 60 7. 60 8. 4 9. False 10. 48 11. 5 12. 30 13. 6 14. 4 15. 36