

Volume and Prism Calculations

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5th Grade Math Practice

Name: _____

Date: _____

Solve each problem. Show your work when needed.

1. If the base area B of a prism is 12 square units and the height h is 5 units, what is the volume V ?
2. A rectangular prism has a base area of 20 square meters and a height of 3 meters. What is its volume?

3. Calculate the volume of a prism with base area 15 cm^2 and height 4 cm: $V = B \times h$
4. Which has a larger volume: a prism with base area 10 and height 6 or a prism with base area 5 and height 12?
5. A triangular prism has a base area of 8 cm^2 and a height of 10 cm. What is its volume?

6. Find the volume of a prism if $B = 25$ square inches and $h = 2$ inches.
7. What is the height of a prism if $V = 45$ cubic units and $B = 9$ square units? $V = B \times h$, so $h = \underline{\hspace{2cm}}$
8. The volume of a prism can be calculated using the formula $V = B + h$.
 True False
9. If a rectangular prism has a base area of 14 square feet and volume of 112 cubic feet, what is its height?

10. A prism has a base area of 6 square meters and a height of 7 meters. Calculate its volume.
11. A cube has a volume of 64 cubic inches. What is the length of one side?

12. What is the volume of a prism with base area 30 square centimeters and height 2.5 centimeters?
13. The height of a prism can be measured diagonally.
 True False
14. If a prism has a volume of 100 cubic units and a base area of 20 square units, what is its height?

15. $V = B \times h$. If $V = 36$ and $B = 12$, then $h = \underline{\hspace{2cm}}$

Answer Key

1. 60 2. 60 3. 60 4. Prism with base area 10 and height 6 5. 80 6. 50 7. 5 8. False 9. 8 10. 42 11. 4 12. 75 13. False 14. 5 15. 3