

Volume and Layers Practice

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5th Grade Math Practice

Name: _____

Date: _____

Solve each problem. Show your work when needed.

1. What is the volume of a box with a base area of 10 square units and a height of 5 units? (Volume = Base Area \times Height)
2. A container has a base area of 12 square meters and is filled to a height of 3 meters. What is its volume?

3. Circle the greater volume: A box with a volume of 45 cubic units or a box with a volume of 30 cubic units
4. If one layer has an area of 7 square units and the height is 4 units, the volume is ____ cubic units.
5. Volume can be calculated by adding the base area and the height.
 True False
6. Calculate the volume of a rectangular prism with a base area of 15 square inches and a height of 4 inches.
7. If a tank has a base area of 9 square feet and is filled with water to a height of 10 feet, what is the volume of water in the tank?

8. What is the volume of a cube with a side length of 3 units? (Volume = Side³)
9. A garden box is 6 feet long, 4 feet wide, and 2 feet high. What is the volume of the garden box?

10. Circle the greater volume: A cylinder with a volume of 100 cubic centimeters or a cylinder with a volume of 75 cubic centimeters.
11. If a container holds 32 cubic meters, and the base area is 8 square meters, the height is ____ meters.
12. The volume of a shape can be expressed in square units.
 True False
13. A box has a base area of 5 square feet and needs to be filled to a height of 6 feet. How much volume does it hold?

14. Find the volume of a prism with a base area of 20 square centimeters and a height of 7 centimeters.

15. If a bookshelf has 3 shelves, each with a height of 1.5 feet and a base area of 2 square feet, what is the total volume of the shelves?

Answer Key

1. 50 2. 36 3. 45 4. 28 5. False 6. 60 7. 90 8. 27 9. 48 10. 100 11. 4 12. False 13. 30 14. 140 15. 9