

Volume Challenge Day

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5th Grade Math Practice

Name: _____

Date: _____

Solve each problem. Show your work when needed.

1. Find the volume of a rectangular prism with length 5 cm, width 4 cm, and height 3 cm. Volume = _____

2. A swimming pool is 20 feet long, 10 feet wide, and 5 feet deep. What is its volume in cubic feet?

3. Calculate the volume of a cube with a side length of 6 cm. Volume = _____

4. A box has dimensions 2 feet by 3 feet by 4 feet. What is the volume of the box in cubic feet?

5. Circle the greater volume: Volume of a cylinder with radius 3 cm and height 5 cm or Volume of a rectangular prism with dimensions 4 cm, 4 cm, and 4 cm?

6. If a rectangular prism has a volume of 120 cubic inches and a height of 5 inches, what is the base area? Base area = _____

7. The volume of a cone is greater than the volume of a sphere with the same radius and height. True or False?

True False

8. A garden has the shape of a rectangular prism measuring 10 meters long, 4 meters wide, and 2 meters high. What is the volume?

9. Find the volume of a composite shape made of a rectangular prism (4 cm x 3 cm x 2 cm) and a cube (2 cm side). Total volume = _____

10. A container holds 15 liters of water. If 5 liters are poured out, how much water remains in the container?

11. What is the volume of a cylinder with a radius of 2 cm and a height of 10 cm? Use $\pi \approx 3.14$. Volume = _____

12. Circle the greater number: Volume of a sphere with radius 3 cm or Volume of a cylinder with radius 3 cm and height 6 cm?

13. A fish tank is 3 feet long, 2 feet wide, and 1.5 feet high. What is its volume in cubic feet?

14. If you increase the dimensions of a cube with side length 2 cm to 4 cm, what is the new volume? New volume = ____

15. The volume of a rectangular prism is calculated as length \times width \times height. True or False?

True False

Answer Key

1. 60 2. 1000 3. 216 4. 24 5. Cylinder 6. 24 7. False 8. 80 9. 38 10. 10 11. 125.6 12. Cylinder 13. 9 14. 64 15. True