

# Volume Applications and Complex Shapes in Biblical Architecture

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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 dimensions 4 cm, 5 cm, and 6 cm.  $V = \underline{\hspace{2cm}}$
2. Noah's Ark is 450 cubits long, 75 cubits wide, and 45 cubits high. What is the volume in cubic cubits?  
  
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3. What is the volume of a box that is 3 feet long, 2 feet wide, and 4 feet high?  $V = \underline{\hspace{2cm}}$
4. If Solomon's Temple had a volume of 20,000 cubic meters, how many cubic meters is that if you convert to liters ( $1 \text{ m}^3 = 1000 \text{ liters}$ )?  
  
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5. Circle the greater volume:  $1500 \text{ cm}^3$  or  $2000 \text{ cm}^3$
6. What is the volume of a rectangular prism with a length of 10 inches, width of 3 inches, and height of 2 inches?  $V = \underline{\hspace{2cm}}$
7. The volume of a cube with a side length of 3 inches is 27 cubic inches. True or False?  
 True    False
8. If a container holds 5 liters, how many milliliters does it hold?  $V = \underline{\hspace{2cm}}$
9. A cistern has a volume of 1500 liters. If it is filled at a rate of 250 liters per hour, how long will it take to fill? (in hours)  
  
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10. If a rectangular garden is 10 meters long, 4 meters wide, and 1 meter deep, what is its volume in cubic meters?  
  
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11. Circle the greater volume: 500 mL or 0.5 L
12. Calculate the total volume: A box with a volume of  $30 \text{ cm}^3$  and another with  $45 \text{ cm}^3$ . Total volume =  $\underline{\hspace{2cm}}$
13. What is the volume of a cylinder with radius 3 cm and height 5 cm? (Use  $\pi \approx 3.14$ )

14. If Solomon's Temple used 300,000 stones, and each stone weighed 1.5 tons, what was the total weight in tons?

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15. The volume of a rectangular prism can be calculated by multiplying length, width, and height. True or False?

True  False

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**Answer Key**

1. 120 2. 151875 3. 24 4. 20000000 5. 2000 cm<sup>3</sup> 6. 60 7. True 8. 5000 9. 6 10. 40 11. 0.5 L 12. 75 13. 141.3 14. 450000 15. True