

Unit 1: Finding Volume

ADVANCED · SET 2

Name: _____ Date: _____

Find each volume or missing measurement. Give exact numeric answers with no units.

1. A right rectangular prism has length 18 cm, width 14 cm, and height 25 cm. Find its volume in cubic centimeters.

Answer: _____

3. A prism has a volume of 9,240 cubic feet and a height of 11 feet. The base is a rectangle whose width is 12 feet. Find the length of the base in feet.

Answer: _____

5. An L-shaped solid is formed by removing a small rectangular prism from a large one. The large prism is 16 in by 10 in by 9 in. The removed piece is 6 in by 4 in by 9 in. Find the volume of the remaining solid in cubic inches.

Answer: _____

7. A fish tank in the shape of a rectangular prism is 36 inches long, 18 inches wide, and 24 inches tall. Water is filled to a height of 20 inches. Find the volume of water in cubic inches.

Answer: _____

9. A rectangular prism has a volume of 7,020 cubic centimeters. The area of its base is 234 square centimeters. Find its height in centimeters.

Answer: _____

2. A rectangular prism has a volume of 4,320 cubic inches. Its base is 24 inches long and 15 inches wide. Find its height in inches.

Answer: _____

4. A cube has edges of length 13 units. Find its volume in cubic units.

Answer: _____

6. A right rectangular prism has length $2\frac{1}{2}$ cm, width 4 cm, and height 6 cm. Find its volume in cubic centimeters.

Answer: _____

8. A figure is composed of two prisms placed side by side. Prism A is 15 m by 8 m by 7 m. Prism B is 9 m by 8 m by 7 m. Find the total volume in cubic meters.

Answer: _____

10. A storage box is 45 cm long, 28 cm wide, and 22 cm tall. A second identical box is stacked on top. Find the combined volume of both boxes in cubic centimeters.

Answer: _____

11. A composite solid is made of two prisms. The lower prism is 30 in by 20 in by 5 in. The upper prism sits on top and is 30 in by 20 in tall by an unknown height, and it adds 6,000 cubic inches. Find the total volume of the whole solid in cubic inches.

Answer: _____