

Unit 1: Finding Volume

PRACTICE · SET 3

Name: _____ Date: _____

Find each volume. Show your work on scrap paper and write your answer with the correct units.

1. A worm compost bin is shaped like a rectangular prism. It is 14 in long, 9 in wide, and 6 in tall. What is its volume?

Answer: _____

3. A popcorn box is a right rectangular prism. The area of its base is 33 cm^2 and its height is 20 cm. What is the volume of the box?

Answer: _____

5. A desk drawer has a volume of $2,240 \text{ cm}^3$. It is 20 cm long and 8 cm tall. How wide is the drawer?

Answer: _____

7. A wooden step is built from two rectangular blocks stacked on top of each other. The bottom block is 10 in by 6 in by 4 in. The top block is 5 in by 6 in by 4 in. What is the total volume of the step?

Answer: _____

9. Box A is 15 cm by 4 cm by 5 cm. Box B is 9 cm by 5 cm by 7 cm. How many more cubic centimeters does the box with the greater volume hold?

Answer: _____

2. Kai fills a box with unit cubes. The bottom layer is 8 cubes long and 5 cubes wide. He stacks 7 identical layers. What is the volume of the box in cubic units?

Answer: _____

4. A birdseed bin holds $1,296 \text{ in}^3$. The base of the bin is 12 in by 9 in. How tall is the bin?

Answer: _____

6. A storage cube has edges that are each 11 cm long. What is its volume?

Answer: _____

8. A planter is made of two rectangular prisms joined together. The big part is 30 cm by 20 cm by 15 cm. The small part is 10 cm by 20 cm by 6 cm. What is the total volume of the planter?

Answer: _____

10. A fish food container is a right rectangular prism with a volume of $1,020 \text{ cm}^3$ and a height of 12 cm. What is the area of its base?

Answer: _____

11. A truck bed is 8 ft long, 5 ft wide, and 3 ft deep. It is filled to the top with mulch. Each bag of mulch holds 2 ft^3 . How many bags of mulch fill the truck bed?

Answer: _____

12. A crate is 14 in long, 8 in wide, and 5 in tall. A solid block that is 6 in by 5 in by 4 in is placed inside. How much empty space is left in the crate?

Answer: _____