

Name: Class:

Volume of cubes and rectangular prisms: word problems

1. Mary's lunch box is 24cm long, 15 cm wide and 4 cm thick. What is the volume of the lunch box?
2. Lucy and her parents went to the beach. Lucy built a sand castle shaped like a cube. Lucy's sand castle look like a square with a side of 12 meters. What is the volume of Lucy's sand castle?
3. Mr. James needs a new gas cooker for his baking classes. His wife bought him a brand new beautiful gas cooker as a present. The gas cooker is 3 feet long, 2 feet wide, and 3 feet tall. What is the volume of the gass cooker?
4. During summer, Angela's living room is usually so hot. She needs to know the volume of her living room so she can buy a fan that is the right size. If the ceiling height is 10 feet and the room has a floor area of 90 square feet, what is the volume of Angela's living room?
5. Paul is the manager of a Juice Company. Their design team recently brought a new design for their juice boxes. If each box must have a length of 15cm, a width of 9cm, and a height of 12cm, what is the volume of each new juice box?
6. Today, some new equipment was brought into Daniel's Science lab. The prismatic test tubes were placed in a cubic box. If the edge of the box is 8 inches, find the box's volume.
7. Jeremy has a box with the dimensions $2\frac{1}{2}$ ft by $5\frac{1}{4}$ ft by $3\frac{2}{3}$ ft. What is the volume of Jeremy's box? Give your answer to two decimal places.

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Mary's lunch box is 24cm long, 15 cm wide and 4 cm thick. What is the volume of the lunch box?

Formula for the volume of a rectangular prism is:
 Volume = length x width x height.
 Find the volume of the lunch box by substituting the values,
 Length = 24 cm, width = 15 cm, height = 4 cm into the formula.
 Volume = 24 x 15 x 4 = 1, 440 cubic centimeters.

So, the volume of the lunch box is 1,440 cubic centimeters.

2. So, the volume of the sand castle is 1,728 cubic meters.

3. So, the volume of the gas cooker is 18 cubic feet.

4. So, the volume of Angela's living room is 900 cubic feet.

5. So, the volume of each new juice box is 1,620 cubic centimeters.

6. So, the volume of the box is 512 cubic inches.

7. So, the volume of Jeremy's box is 48.17 cubic feet.