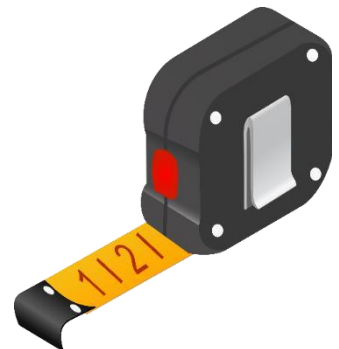# Volume of rectangular prisms (mixed units)

Grade 5 Word Problems Worksheet

1.	A binder is 9 inches wide, 12 inches long and 1.5 inch thick. What is the volume of documents the binder can hold?

2.	A lunch box is 24 cm long, 15 cm wide and 5 cm thick. What is the volume of the lunch box?

3.	A set of encyclopedias is 8 inches long, 16 inches tall and 6 inches wide. What is the volume of the set of encyclopedias?

4. In a hotel, there is a safe in the closet that is 40 cm wide, 20 cm deep and 30 cm tall. Next to the safe, there's a drawer with digital lock. The drawer is 30 cm wide, 25 cm deep and 20 cm tall. What is the total volume of space for hotel guests to put their valuables?

5. A rectangular pitcher is 3 inches wide, 9 inches long and 16 inches tall. If water is filled up to 5 inches, how much more water can be put in the pitcher?

Answers

1.   9 x 12 x 1.5 = 162
   The volume of the documents the binder can hold is 162 cubic inches.

2.   24 x 15 x 5 = 1,800
   The volume of the lunch box is 1,800 cubic centimeters.

3.   8 x 16 x 6 = 768
   The volume of the set of encyclopedias is 768 cubic inches.

4.   40 x 20 x 30 + 30 x 25 x 20 = 24,000 + 15,000 = 39,000
   The total volume of space for hotel guests to put their valuables is 39,000 cubic centimeters.

5.   3 x 9 x (16 – 5) = 3 x 9 x 11 = 297
   297 cubic inches of water can be added to the pitcher.