Math Virtual Learning

6th Grade Math
Finding Volume with Fractional Edge Lengths

May 1, 2020

6th Grade Math
Lesson: May 1, 2020

Objective/Learning Target:
Student will find the volume of right rectangular prisms with fractional edge lengths.

Time to warm up!

Which of the following will help you find the volume of a rectangular prism? (choose 2)

V = ½ bh   V = lwh   V = lw   V = Bh

Blaine has a rectangular container with a volume of 288 inches cubed. If the height of the container is 12 inches, what is the area of the base (B)?

What are the possible measurements for the length and height?

Time to warm up! answers

Which of the following will help you find the volume of a rectangular prism? (choose 2)

V = 1/2bh $\boxed{V = lwh}$ V = lw $\boxed{V = Bh}$

Blaine has a rectangular container with a volume of 288 inches cubed. If the height of the container is 12 inches, what is the area of the base (B)?

24 in²

What are the possible measurements for the length and height?

1 and 24   2 and 12   3 and 8   4 and 6

Today we will continue working with volume, but we will be working with shapes that have fractional edge lengths.

You will be using the same formulas you have already learned, but now we will be working with fractions! So, here is the new procedure:

1. Turn all edge lengths into improper fractions. <u>Click here for tutorial (stop at 5:40)</u>
2. Multiply edge lengths together according to the formula. <u>How to Multiply Fractions Tutorial</u>
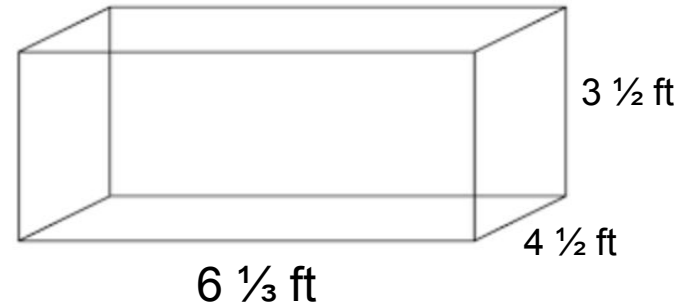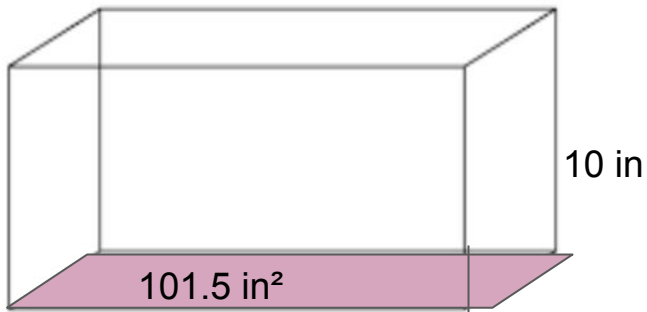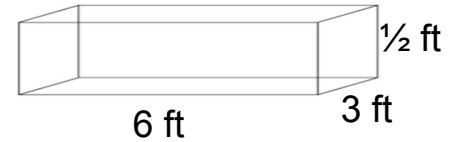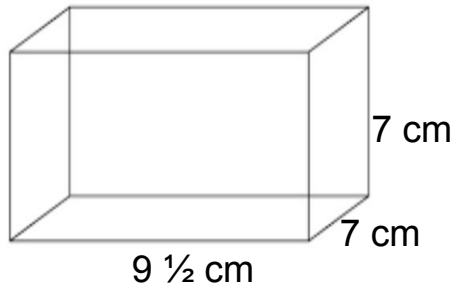3. Take your final answer and, if needed, change it back into a mixed number. <u>Click here for tutorial (start at 5:42)</u>

Example:

1 ½ in

8 ½ in

11 in
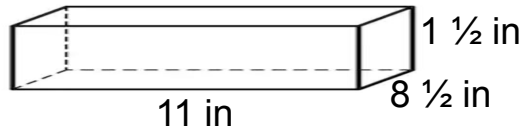
<u>Click Here for Walkthrough</u>

Practice

Find the volume of the following figures. Give your answers as a mixed number.

7 cm
7 cm
9 ½ cm

½ ft
6 ft
3 ft

10 in
101.5 in²

3 ½ ft
4 ½ ft
6 ⅓ ft

Practice **answers**

Find the volume of the following figures. Give your answers as a mixed number.

465 ½ cm³

7 cm

7 cm

9 ½ cm

9 ft³

½ ft

6 ft

3 ft
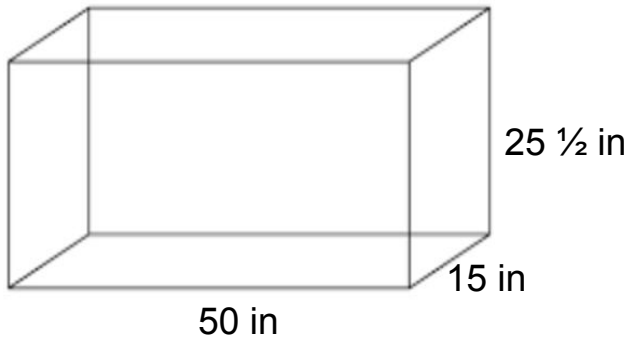
1,015 in³

10 in

101.5 in²

99 ¾ ft³

3 ½ ft

4 ½ ft

6 ⅓ ft
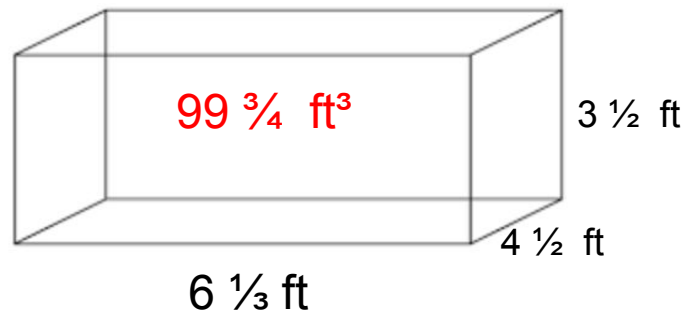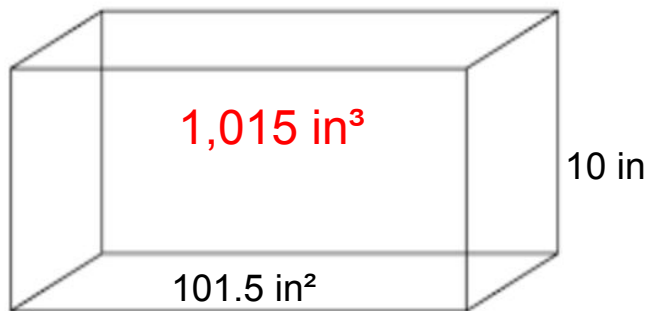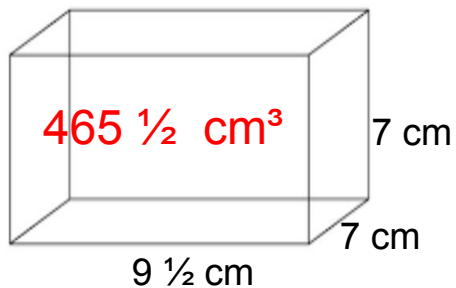
More Practice

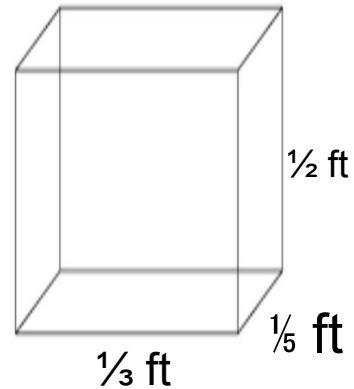## Solve the following problems

Anton is filling a fish tank with water. What volume of water does he need?

A. 19,125 in³
B. 18,375 in³
C. 4,815 in³
D. 90 ½ in³

25 ½ in

15 in

50 in

Jordan needs to carry drinking water to help people in a flooded area. What is the volume of the jug he is carrying?
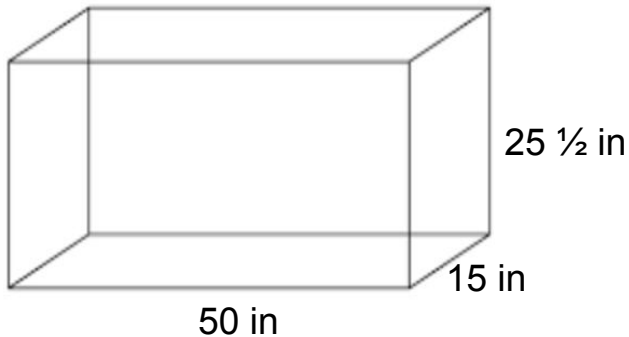

½ ft

⅕ ft
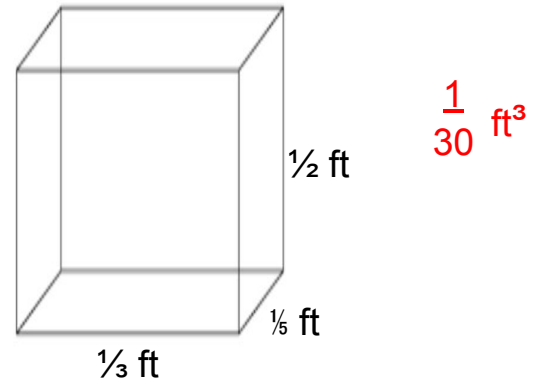
⅓ ft

More Practice **answers**

Solve the following problems

Anton is filling a fish tank with water. What volume of water does he need?

A. 19,125 in³
B. 18,375 in³
C. 4,815 in³
D. 90 ½ in³

A

25 ½ in

15 in

50 in

Jordan needs to carry drinking water to help people in a flooded area. What is the volume of the jug he is carrying?

$\frac{1}{30}$ ft³

½ ft

⅕ ft

⅓ ft

Reflection

On a piece of paper, write your understanding of today's lesson. Use the chart to help you. Go into detail explaining where you are struggling, or where you are succeeding.

Email your teacher if you feel like you need further assistance with today's lesson!

Rate Your Understanding

0	1	2	3	4
😥	😐	☺️	😁	😎
I am so lost.	I don't really get it.	I'm starting to get it.	I got this.	I could teach it.

Additional Resources

[More instruction and practice on Khan Academy](#)

[Basic Volume Game](#)

[Volume Game](#)