

Day 1: April 13th, 2020
Volume of Rectangular Prisms
with Whole Numbers

Volume = Length x Width x Height

$$V = L \times W \times H$$

Warm Up (Do on a piece of paper):
YOU WILL NOT SUBMIT THIS

- 1.) $17 \times 24 =$
- 2.) $15 \times 56 =$
- 3.) $45 \times 84 =$
- 4.) $12 \times 32 =$
- 5.) $68 \times 90 =$

Volume:

- <https://www.khanacademy.org/math/basic-geo/basic-geo-volume-sa/volume-rect-prism/v/volume-of-a-rectangular-prism-or-box-examples>
- Please watch the video above for a review tutorial on finding the volume of rectangular prisms

Volume Notes (Step by Step):

Please write these down as they will be used all week:

- **Step 1: Find the length of the rectangular prism.** The length is the longest side of the flat surface of the rectangle on the top or bottom of the rectangular prism.
- **Step 2: Find the width of the rectangular prism.** The width is the shorter side of the flat surface of the rectangle on the top or bottom of the rectangular prism
- **Step 3: Find the height of the rectangular prism.** The height is the part of the rectangular prism that rises up. Imagine that the height is what stretches up a flat rectangle until it becomes a three-dimensional shape.
- **Step 4:**
Multiply the length, the width, and the height. You can multiply them in any order to get the same different result. The formula for finding the volume of a rectangular prism is the following: Volume = Length * Height * Width, or $V = L * H * W$
- **Step 5:**
State your answer in cubic units. Since you're calculating volume, you're working in a three-dimensional space. Just take your answer and state it in cubic units. Whether you're working in feet, inches, or centimeters, you should state your answer in cubic units. ⁵60 will become 60 in³.

Let's Practice! (Do this on paper)

****Don't forget your units!**

Example:



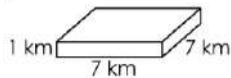
To find the volume of a rectangular prism, multiply the length by the width by the height.

$$V = l \times w \times h$$

$$V = 3 \text{ cm} \times 5 \text{ cm} \times 12 \text{ cm}$$

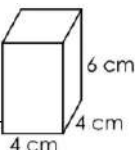
$$V = 180 \text{ cm}^3$$

1.)



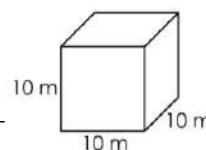
Volume: _____

2.)



Volume: _____

3.)



Volume: _____

4.) L = 7 m
W = 6 m
H = 9 m

Volume: _____

5.) L = 14 m
W = 5 m
H = 32 m

Volume = _____

6.) A cube (has all the same sides)

Side length = 8 m

Volume = _____

Additional Practice (if needed):

- IXL Practice: 6th Grade Math
- FF. Geometric Measurement: 14. Volume of cubes and rectangular prisms
- <https://www.ixl.com/math/grade-6>

Day 2: April 14th, 2020
Volume of Rectangular Prisms
with Decimals

Volume = Length x Width x Height

$$V = L \times W \times H$$

Warm up Problems or [Link](#) for Decimals

1) $34.5 \times 5.6 =$

2) $78.2 \times 2.3 =$

3) $2.3 \times 5.6 \times 1.8 =$

Notes:

On Day 1 you took notes. Add this to your notes.

When using decimals, *first* multiply to get the answer, *then*

Count up all of the numbers of digits that are located at the right side of the decimal points of the factors.

$$3.77 \times 2.8 = ?$$

Here is a Video Link to Explain:

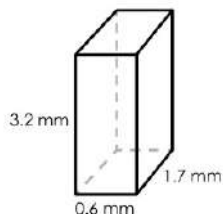
<https://www.wikihow.com/Multiply-Decimals>

$$\begin{array}{r} 3.77 \text{ (2 decimal places)} \\ \times 2.8 \text{ (1 decimal place)} \\ \hline 3016 \\ +754 \\ \hline 10.556 \text{ (3 decimal places)} \end{array}$$

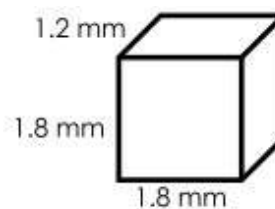
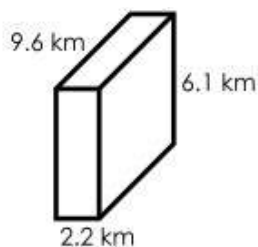
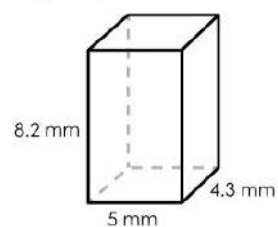
Let's Practice! **Volume = (l · w) · h**
(do this on Paper)

****Don't forget your units!**

Find the volume of the rectangular prism.



Find the volume of the rectangular prism.



Let's Practice! $\text{Volume} = (l \cdot w) \cdot h$
(do this on Paper)

****Don't forget your units!**

length = 3.9 cm

width = 5.5 cm

height = 4 cm

What is the volume?

length = 6.2 cm

width = 2 cm

height = 1.3 cm

What is the volume?

Additional Practice if needed:.

- IXL Practice: 6th Grade Math
- H.2 Multiplying Decimals

<https://www.ixl.com/math/grade-6/multiply-decimals>

Or <https://study.com/academy/lesson/multiplying-decimals-rules-steps-examples.html>

Day 3: April 15th, 2020
No New Work Today
Finish any work from Day 1 or 2

Volume = Length x Width x Height

$$V = L \times W \times H$$

Day 4: April 16th, 2020
Volume of Rectangular Prisms
with Fractions

Volume = Length x Width x Height

$$V = L \times W \times H$$

- 1. Warm Up Multiply Fractions
- 2. [Instructional Video Multiply Fractions](#)
- 3. Calculate Volume with fractions side lengths
 - - instructional notes
 - - practice problems
- 4. Khan Academy practice
- [Khan Academy Practice](#)

Warm up Problems:

Name _____

Date _____

Multiply.

1. $\frac{2}{3} \cdot \frac{4}{5} =$

2. $\frac{3}{4} \cdot \frac{5}{6} =$

3. $\frac{5}{9} \cdot 12 =$

4. $\frac{3}{7} \cdot \frac{7}{12} =$

5. $\frac{9}{10} \cdot \frac{2}{3} =$

Instructional Notes

Name _____

Reteaching

13-4

Volume with Fractional Edge Lengths

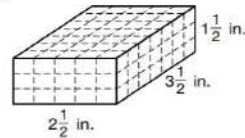
When finding the volume of a rectangular prism with fractional edge lengths, you have to find the number of cubes with fractional edge lengths that can fill the prism. What is the volume of the rectangular prism shown below at the right?

Consider a $\frac{1}{2}$ -inch cube. 8 half-inch cubes can fill a 1-inch cube.

Next, figure out how many $\frac{1}{2}$ -inch cubes will fill the prism. The prism can be filled with $5 \times 7 \times 3 = 105$ half-inch cubes.

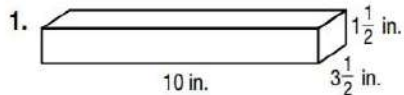
Divide 105 by 8 because 8 half-inch cubes make up a 1-inch cube. $105 \div 8 = 13\frac{1}{8}$

The volume of this rectangular prism is $13\frac{1}{8} \text{ in}^3$.

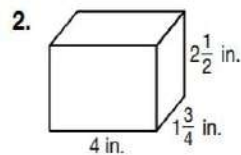


Practice Problems #1

For 1 through 4, find the volume of each rectangular prism.



$V =$ _____



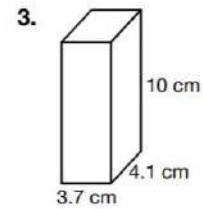
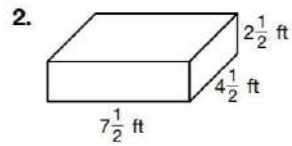
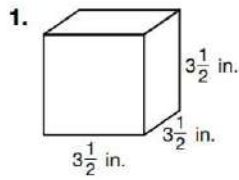
$V =$ _____

Practice Problems #2

Volume with Fractional Edge Lengths

13-4

Find the volume of each rectangular prism.



Friday Day 5: Quiz Volume of rectangular prisms

Question 1

16.5 pts

Q 2 - Find the volume of the following rectangular prism in cubic cm.

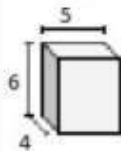


- A - $V = 64$ cubic cm
- B - $V = 70$ cubic cm
- C - $V = 75$ cubic cm
- D - $V = 72$ cubic cm

Question 2

16.7 pts

Q 3 - Find the volume of the following rectangular prism in cubic cm.



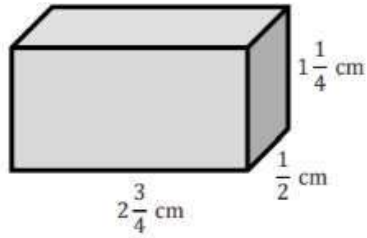
- A - $V = 112$ cubic cm
- B - $V = 120$ cubic cm
- C - $V = 124$ cubic cm
- D - $V = 150$ cubic cm

Question 3

16.7 pts

2. Calculate the volume of the following rectangular prisms.

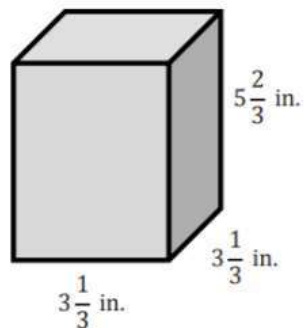
a.

☐ $2\frac{17}{19}$ ☐ $1\frac{23}{40}$ ☐ $1\frac{23}{32}$ ☐ $1\frac{1}{2}$

Question 4

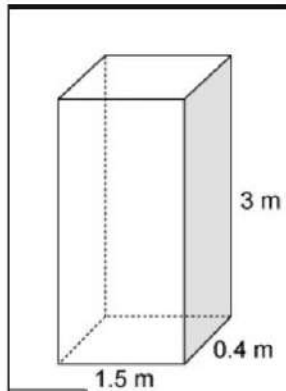
16.7 pts

b.

☐ $59\frac{8}{9}$ ☐ $62\frac{26}{27}$ ☐ $61\frac{13}{15}$ ☐ 63

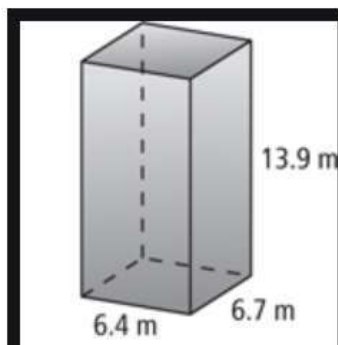
Question 5

16.7 pts

☐ 1.8☐ 2.2☐ 7☐ 2.8

Question 6

16.7 pts

☐ 596.032☐ 400.1☐ 500.55☐ 599.935

Work is completed. Submit with a photo of the quiz to Canvas or keep to give to your teacher at later date.