Assignment

Write

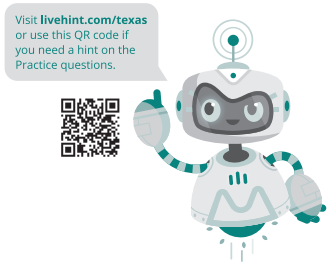
Suppose a rectangular prism has fractional edge lengths. Describe how you can determine the dimensions of unit cubes that will fill the rectangular prism completely with no overlaps or gaps.

Remember

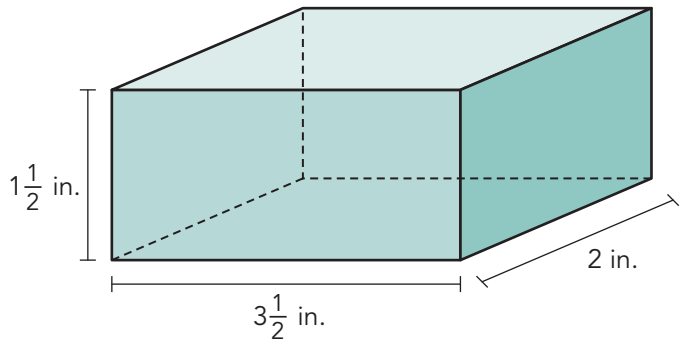
The volume of a rectangular prism is a product of its length, width, and height.

$$V = l \cdot w \cdot h$$

Practice



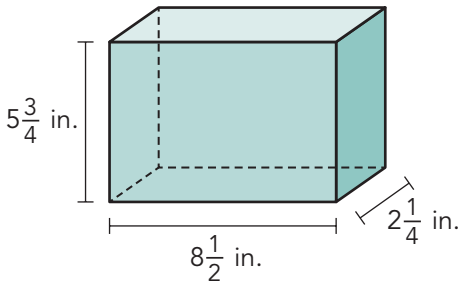
1. Determine the number of $\frac{1}{2}$-inch cubes that can pack the prism shown.



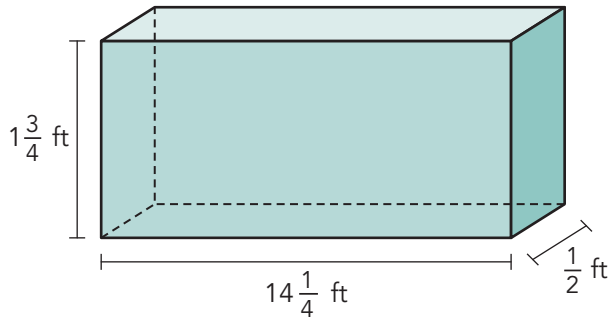
2. A rectangular prism can be completely packed with 300 $\frac{1}{5}$-foot cubes. What is the volume of the prism?

3. Calculate the volume of each right rectangular prism. Round your answer to the nearest hundredth, if necessary.

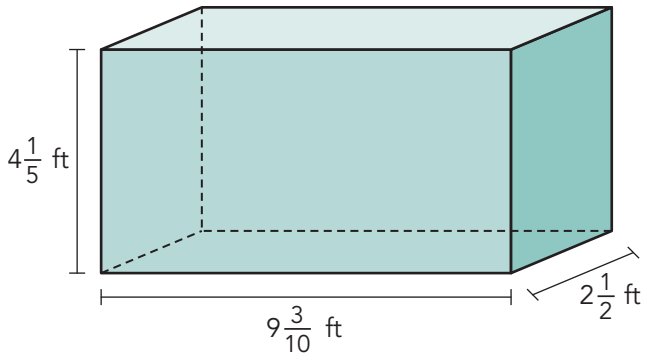
a.



b.

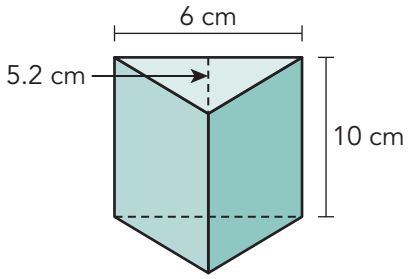


c.



Stretch

Calculate the volume for the triangular prism.



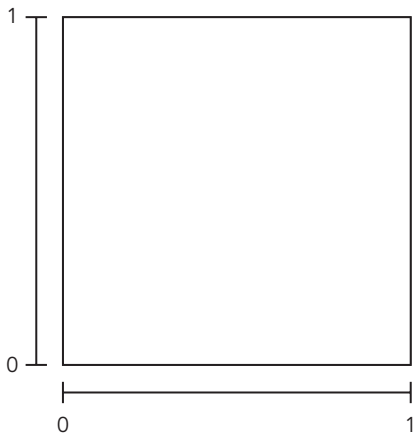
Review

1. Elena wants to put together some of her favorite songs on her computer. She wants to store 60 minutes worth of music. Elena wonders how many songs she will be able to include. She looks online and finds a source that says the average song length is $3\frac{1}{2}$ minutes. If this is true, about how many songs will Elena be able to store? Show your work.
2. Ling is a camp counselor at a local summer camp. She is in charge of the weekly craft activity for 40 campers. Ling plans to make fabric-covered frames that each require $\frac{1}{6}$ yard of fabric. When Ling sets up for her craft activity, she measures the four separate fabric remnants her director gave her. The table shows how much of each fabric she has. How many campers can use plaid fabric? Show your work.

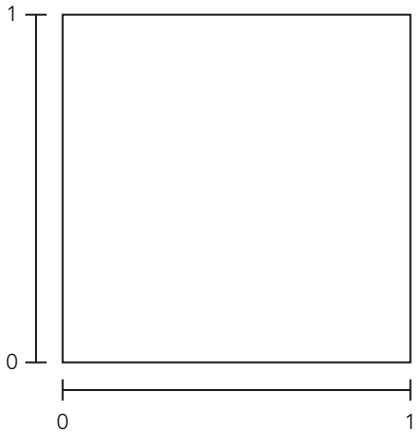
Fabric	Amount (yards)
Plaid	$\frac{11}{12}$
Tie-dyed	$1\frac{7}{9}$
Striped	$2\frac{2}{9}$
Polka-dotted	$1\frac{3}{4}$

3. Represent each product using an area model. Then calculate the product.

a. $\frac{3}{4} \times \frac{1}{3}$



b. $\frac{1}{2} \times \frac{3}{5}$



4. Determine the GCF of each set of numbers.
   a. 72 and 30
   b. 30 and 54

5. Determine the LCM of each set of numbers.
   a. 10 and 12
   b. 8 and 9