

Week 3: May 4-May 8, 2020

Name: _____

This is your assignment check off list, so you can keep your work organized every week. Please check off the appropriate box as you finish your assignments. All ELA assignments can be found on readworks.org and all Math assignments are from your My Math workbooks.

Day	Assignments	Completed	Incomplete
Monday	ELA: Using Fresh Water Math: MM 955-957		
Tuesday	ELA: Cats Can Save the Day Math: MM 961-964		
Wednesday	ELA: How Did the Solar System Form? Math: MM 967-969		
Thursday	ELA: Asteroid Attack Math: MM 973-980		
Friday	ELA: Write a note to your teacher explaining which assignment was challenging and why? Which assignment was fun and why?		

Complete the check off list. Organize and pin/staple the whole packet together.


Reflection:

Dear teacher,

Sincerely,

Volume of Prisms

Lesson 9

ESSENTIAL QUESTION 
How does geometry help me solve problems in everyday life?

Volume is the amount of space inside a three-dimensional figure. You can use either formula below to find the volume of a prism.

$$V = \ell \times w \times h \quad V = \text{volume, } \ell = \text{length, } w = \text{width, and } h = \text{height}$$

$$B = \ell w$$

$$V = B \times h \quad V = \text{volume, } B = \text{area of the base, and } h = \text{height}$$

Common units of volume are cubic inches, cubic feet, cubic yards, cubic centimeters, and cubic meters.



Math in My World



Example 1

On his family vacation to the beach, Armando filled a cooler with water and snacks. Find the volume of the cooler.

One Way Use $V = \ell \times w \times h$.

$$V = \ell \times w \times h$$

$$V = \underline{\quad} \times \underline{\quad} \times \underline{\quad}$$

$$V = \underline{\quad}$$

Volume formula

$$\ell = 30, w = 15, h = 20$$

Multiply.

Another Way Use $V = B \times h$.

$$V = B \times h$$

$$V = \underline{\quad} \times \underline{\quad}$$

$$V = \underline{\quad}$$

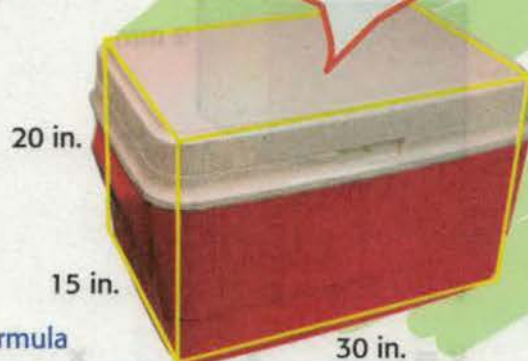
Volume formula

$$B = 30 \times 15, h = 20$$

Multiply.

The volume of the cooler is _____ cubic inches.

Prisms are cooler!

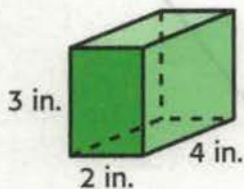


Independent Practice

Mathematical PRACTICE 2

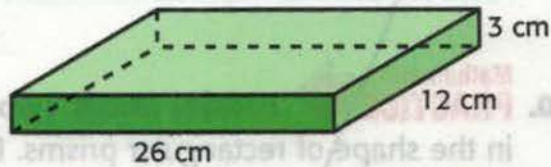
Use Symbols Find the volume of each prism. Use the formula $V = \ell \times w \times h$ or $V = B \times h$.

3.



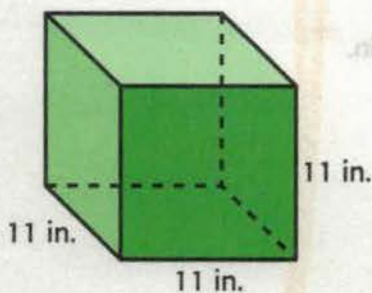
$$V = \underline{\hspace{2cm}}$$

4.



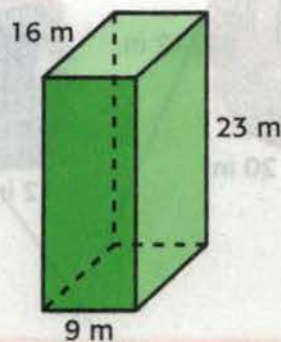
$$V = \underline{\hspace{2cm}}$$

5.



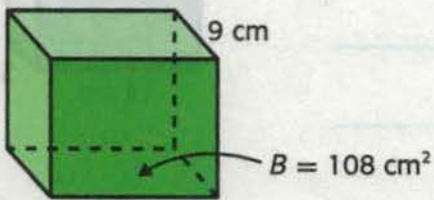
$$V = \underline{\hspace{2cm}}$$

6.



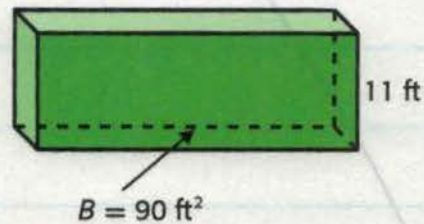
$$V = \underline{\hspace{2cm}}$$

7.



$$V = \underline{\hspace{2cm}}$$

8.



$$V = \underline{\hspace{2cm}}$$

Name _____



Hands On

Build Composite Figures

Lesson 10

ESSENTIAL QUESTION ?
How does geometry help me solve problems in everyday life?

A **composite figure** is made up of two or more three-dimensional figures.

Build It



A composite figure is shown below. Use centimeter cubes to build the figure.



1 Count the number of cubes needed to make the base layer.

How many cubes did you use? _____

2 Count the number of cubes needed to make the top layer.

How many cubes did you use? _____

3 Add the number of cubes for the base and the top.

--

Talk About It

1. How many cubes did it take to build the figure? _____

2. What is the volume of the composite figure? _____

_____ cubic centimeters

Try It

Separate the composite figure into two rectangular prisms. Then find the volume of each prism.

- 1 Find the volume of the top prism.

$$V = \ell \times w \times h$$

$$V = \underline{\quad} \times \underline{\quad} \times \underline{\quad}$$

$$V = \underline{\quad}$$

The volume of the top prism is $\underline{\quad}$ cubic centimeters.

- 2 Find the volume of the bottom prism.

$$V = \ell \times w \times h$$

$$V = \underline{\quad} \times \underline{\quad} \times \underline{\quad}$$

$$V = \underline{\quad}$$

The volume of the bottom prism is $\underline{\quad}$ cubic centimeters.


- 3 Add the volumes to find the volume of the composite figure.

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

So, the volume of the composite figure is $\underline{\quad}$ cubic centimeters.

Talk About It

3. Explain how you can use addition to find the volume of a composite figure.

4. **Mathematical PRACTICE**  **Make Sense of Problems** Explain how you would find the volume of the composite figure shown.

5. What is the volume of the figure in Exercise 4?

_____ cubic centimeters



Practice It

Use the model at the right to build the composite figure using centimeter cubes.



6. Separate the figure into prisms. Make a drawing of each prism used to build the composite figure.

My Drawing!

7. How many cubes did it take to build the figure?
- _____

8. What is the volume of this figure?
- _____ cubic centimeters

Use the model at the right to build the composite figure using centimeter cubes.



9. Separate the figure into prisms. Make a drawing of each prism used to build the composite figure.

My Drawing!

10. How many cubes did it take to build the figure?
- _____


11. What is the volume of this figure?
- _____ cubic centimeters



Apply It

Name _____

Tanela arranged centimeter cubes into the composite figure shown. Use the composite figure for Exercises 12 and 13.

- 12. PRACTICE**  **Model Math** Separate the figure into prisms. Make a drawing of each prism used to build the composite figure.

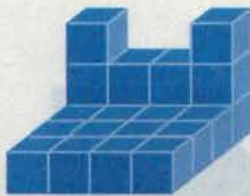



My Drawing!

- 13.** What is the volume of the composite figure? Check your answer by building a model and counting the number of cubes.

_____ cubic centimeters

- 14.** Circle the composite figure that has a volume of 24 cubic centimeters.



- 15. PRACTICE**  **Make Sense of Problems** Explain how to use the formula of a rectangular prism to find the volume of a composite figure that is composed of rectangular prisms.

Write About It

- 16.** How can you use models to find the volume of composite figures?

Volume of Composite Figures

Lesson 11

ESSENTIAL QUESTION
How does geometry help me solve problems in everyday life?

A **composite figure** is made up of two or more three-dimensional figures. To find the volume, separate the figure into figures with volumes you know how to find.

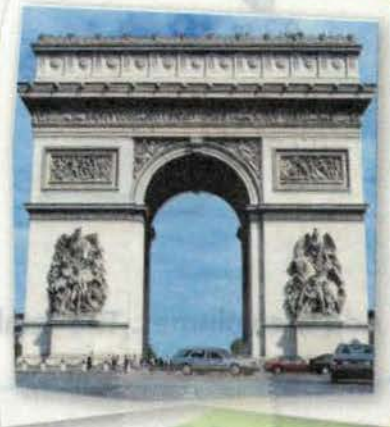
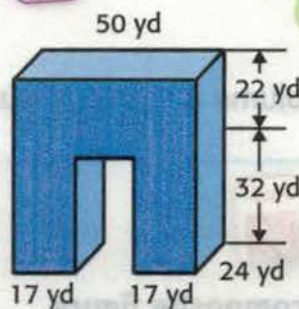


Math in My World



Example 1

The Arc de Triomphe in Paris, France, is roughly in the shape of the composite figure shown. Find the volume of the Arc de Triomphe.



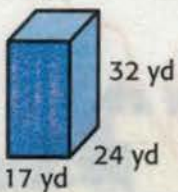
Separate the figure into three rectangular prisms. Find the volume of each prism.



$$V = \ell \times w \times h$$

$$V = 17 \times 24 \times 32$$

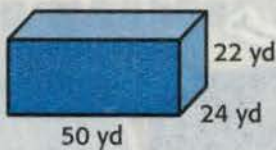
$$V =$$



$$V = \ell \times w \times h$$

$$V = 17 \times 24 \times 32$$

$$V =$$



$$V = \ell \times w \times h$$

$$V = 50 \times 24 \times 22$$

$$V =$$

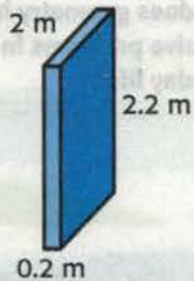
+

So, the total volume is _____ cubic yards, or _____ yd^3 .

Example 2

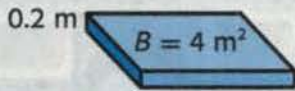
Find the volume of the composite figure.

Separate the figure into two prisms.
Find the volume of each prism.



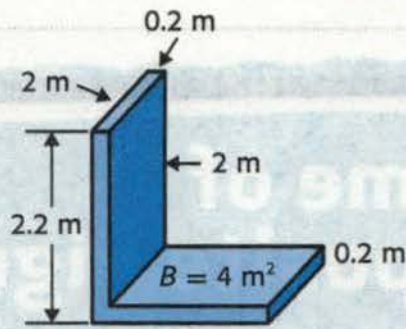
$$V = \ell \times w \times h$$

$$V = \underline{\quad} \times \underline{\quad} \times \underline{\quad} \longrightarrow V = \boxed{\quad}$$



$$V = B \times h$$

$$V = \underline{\quad} \times \underline{\quad} \longrightarrow V = \boxed{\quad}$$



$$\boxed{\quad} + \boxed{\quad} = \underline{\quad}$$

Add the volumes. The total volume is $\underline{\quad}$ cubic meters, or $\boxed{\quad}$ m³.

Guided Practice



1. Find the volume of the composite figure.

Bottom Prism

$$V = B \times h$$

$$V = 126 \times 11$$

$$V = \underline{\quad}$$

Top Prism

$$V = \ell \times w \times h$$

$$V = 2 \times 9 \times 5$$

$$V = 2 \times (9 \times 5)$$

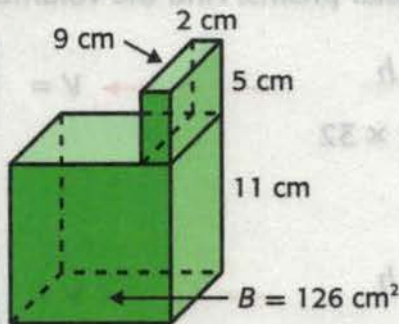
$$V = 2 \times 45$$

$$V = \underline{\quad}$$

Associative Property

The total volume is $\underline{\quad} + \underline{\quad}$

or $\underline{\quad}$ cubic centimeters.



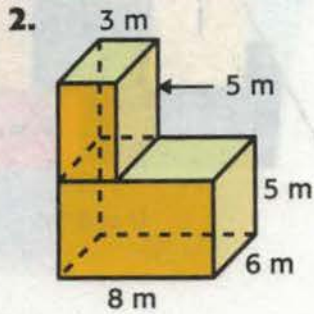
Talk MATH

How is volume related to the operation of addition?

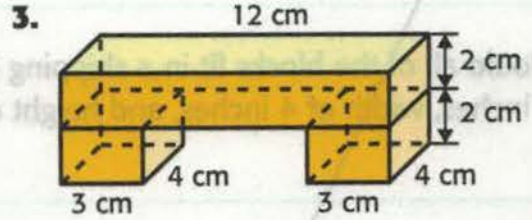


Independent Practice

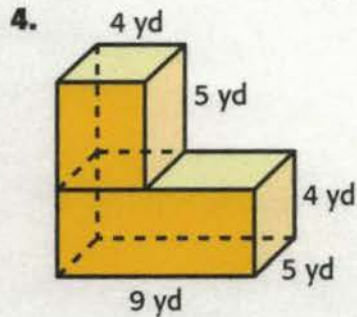
Find the volume of each composite figure.



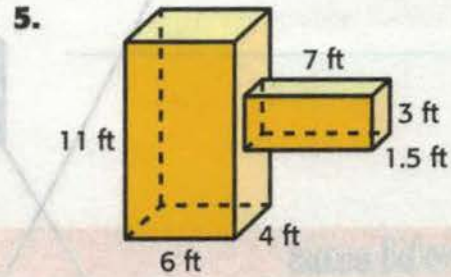
$V =$ _____



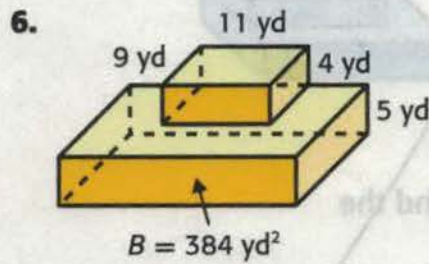
$V =$ _____



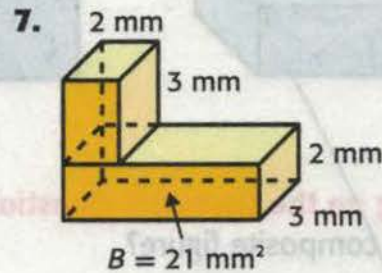
$V =$ _____



$V =$ _____



$V =$ _____



$V =$ _____

Name _____

Lesson 12

ESSENTIAL QUESTION ?

How does geometry help me solve problems in everyday life?

Problem-Solving Investigation

STRATEGY: Make a Model



Learn the Strategy

Nick is helping his sister put away her alphabet blocks. To fill one layer, it takes nine blocks. If there are six layers, how many blocks would be in the box?



1 Understand

What facts do you know?

There are _____ blocks in each layer and there are six layers.

What do you need to find?

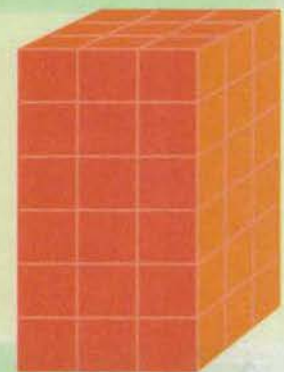
The number of blocks in the box when there are _____ layers.

2 Plan

I can solve the problem by making a _____.

3 Solve

Arrange _____ cubes in a 3×3 array. Stack the cubes until there are _____ layers. There are a total of _____ cubes. So, the box would have _____ blocks.



4 Check

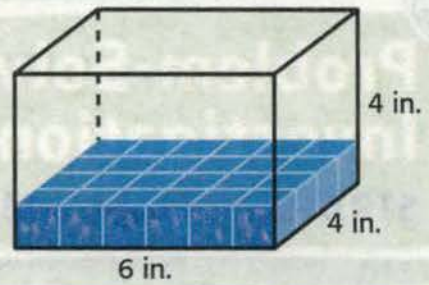
Is my answer reasonable? Explain.

Multiply.

$$6 \times 9 = \underline{\hspace{2cm}}$$

Practice the Strategy

Evelyn wants to mail a package to her cousin.
What is the volume of the package if it is 6 inches long, 4 inches wide, and 4 inches tall?



1 Understand

What facts do you know?

What do you need to find?

2 Plan

3 Solve

4 Check

Is my answer reasonable? Explain.

Review

Chapter 12

Geometry

Vocabulary Check



Match each word to its definition. Write your answers on the lines provided.

1. **equilateral triangle** _____

2. **composite figure** _____

3. **parallelogram** _____



4. **volume** _____

5. **rectangular prism** _____

6. **regular polygon** _____

7. **triangular prism** _____

8. **obtuse triangle** _____

9. **face** _____



10. **polygon** _____

11. **square** _____

12. **pentagon** _____

A. a three-dimensional figure with six rectangular faces, twelve edges, and eight vertices

B. a flat surface of a three-dimensional figure

C. a triangle with one obtuse angle

D. a closed figure made up of line segments that do not cross each other

E. a figure made up of two or more three-dimensional figures

F. a polygon with five sides

G. a prism with two congruent triangular bases

H. a polygon with congruent sides and all congruent angles

I. a quadrilateral with opposite sides both parallel and congruent

J. a triangle with three congruent sides

K. the amount of space within a three-dimensional figure

L. a rectangle with four congruent sides

Concept Check



Name each polygon. Determine if it appears to be *regular* or *not regular*.

Review

13.



14.



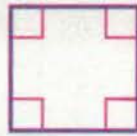
Vocabulary Check

Describe the attributes of each quadrilateral. Then classify the quadrilateral.

15.

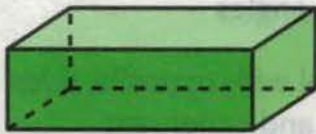


16.



Describe the faces, edges, and vertices of each three-dimensional figure. Then identify it.

17.



18.

