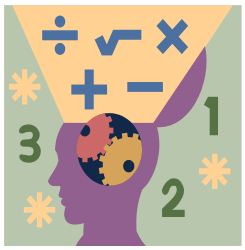
Name:_____ Section: _____



**Homework**

Greetings, Scholar and Parents! This week, we start **Chapter 15 – Volume of Rectangular Prisms**. This chapter starts off with a fairly straight-forward and easy formula, but quickly complicates itself with high-level applications such as volume per unit object, hypothetical fillings and estimation, and composite figures.

**Extra Practice**

Additional practice for the daily lessons is available on IXL. To access extra practice, please have your child login into IXL and see **"From Your Teacher"** section. These are recommended for reinforcement.

- Volume of rectangular prisms made of unit cubes I
- Volume of rectangular prisms made of unit cubes II
- Volume of irregular figures made of unit cubes
- Volume of rectangular prisms made of unit cubes: word problems
- Volume of cubes and rectangular prisms
- Volume of compound figures

**Notes**

**This homework assignment is due on Sunday, January 18th**. Students must prove and show all their work in the provide space. Scholars should use a separate sheet of paper if they need additional space. Failure to show work or packets submitted after the due date will result in a lower grade. If a scholar struggles with a lesson, they can review the daily lesson on HMH. Please feel free to contact me with any questions or concerns at peter.vanegas@archimedean.org.

| | | |
|---|---|---|
| Monday | January 12th | 15.2 |
| Tuesday | January 13th | **EXTRA CREDIT QUIZ – NO ADDITIONAL WORK** |
| Wednesday | January 14th | 15.3 |
| Thursday | January 15th | **MINI-QUIZ:** Volume Basics |
| Friday | January 16th | Teacher Planning Day – No Homework. |

Name _____

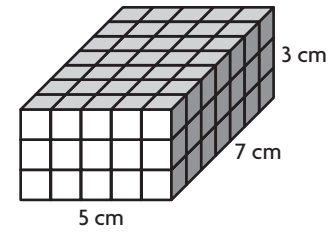


# Understand Volume

Go Online
Interactive Examples

**Use the unit given. Find the volume.**

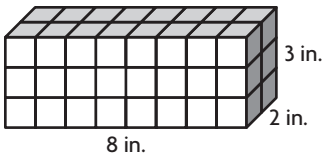
**1.**




Each cube = 1 cu cm

Volume = 105 cu cm

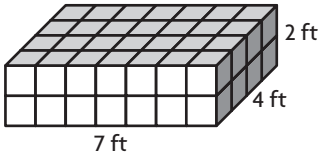
**2.**




Each cube = 1 cu in.

Volume = _____ cu _____

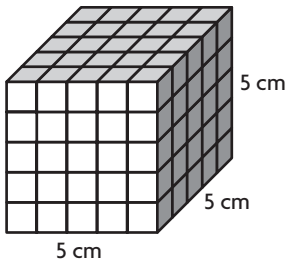
**3.**




Each cube = 1 cu ft

Volume = _____ cu _____

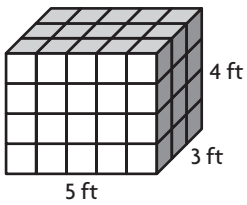
**4.**




Each cube = 1 cu cm

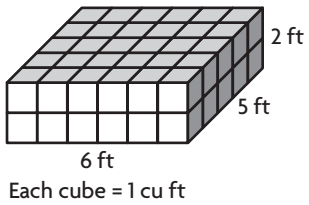
Volume = _____ cu _____

**5.** Compare the volumes. Write <, >, or =.




Each cube = 1 cu ft

_____ cu ft ◯ _____ cu ft




Each cube = 1 cu ft

## Problem Solving Real World

**6.** A manufacturer ships its product in boxes with edges of 4 inches. If 12 boxes are put in a carton and completely fill the carton, what is the volume of the carton?

_____

_____

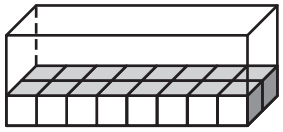
**7.** Hugo and Ava each built a rectangular prism that has a length of 5 units, a width of 2 units, and a height of 4 units. Hugo used cubes that are 1 cm on each side. Ava used cubes that are 1 in. on each side. What is the volume of each prism?

_____

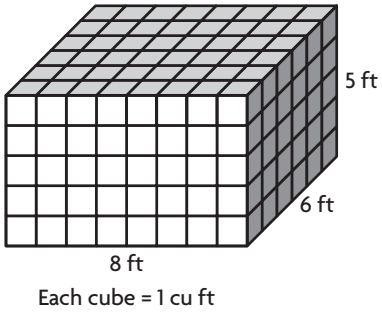
_____

## Lesson Check

**8.** Elena packed 48 cubes into this box. Each cube has edges that are 1 centimeter. How many layers of cubes did Elena make?



**9.** What is the volume of the rectangular prism?



Name _____

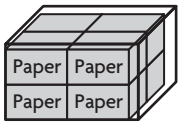


# Estimate Volume

Go Online
Interactive Examples

**Estimate the volume.**

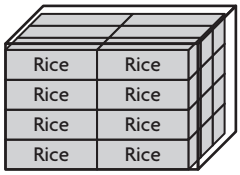
**1.** Volume of package of paper: 200 cu in.




**Think:** Each package of paper has a volume of 200 cu in. There are 8 packages of paper in the larger box. So, the volume of the large box is about 8 × 200, or 1,600 cubic inches.

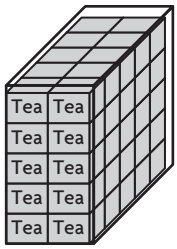
Volume of large box: 1,600 cu in.

**2.** Volume of rice box: 500 cu cm



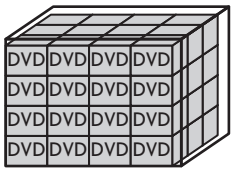

Volume of large box: _____

**3.** Volume of tea box: 40 cu in.




Volume of large box: _____

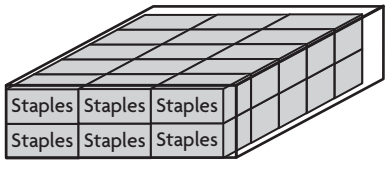
**4.** Volume of DVD case: 20 cu in.




Volume of large box: _____

## Problem Solving Real World

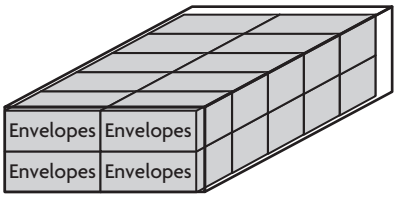
**5.** Theo fills a large box with boxes of staples. The volume of each box of staples is 120 cu cm. Estimate the volume of the large box.



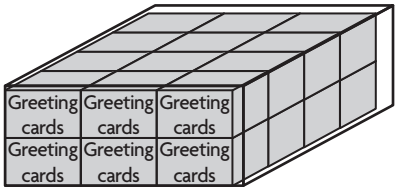

_____

## Lesson Check

**7.** Mesoon packs boxes of envelopes into a larger box. The volume of each box of envelopes is 1,200 cubic centimeters. About what is the volume of the large box?




**8.** Calvin packs boxes of greeting cards into a larger box. The volume of each box of greeting cards is 90 cubic inches. About what is the volume of the large box?




**10.** Each cube represents 1 cubic inch. What is the volume of the prism?