

LESSON 29: Volume

Here is the key to **S369**.

Homework

.....
 Name _____ Date _____

Directions: Complete the following SOLVE problem.

A rectangular prism has dimensions of $\frac{6}{4}$, $\frac{3}{4}$ and $\frac{2}{4}$ inches. | Each of the cubes that make up the prism has a side length of $\frac{1}{4}$ inch. | What is the total number of cubes that make up the prism?

S Underline the question.

This problem is asking me to find **the number of cubes that make up the prism.**

O Identify the facts.

Eliminate the unnecessary facts.

List the necessary facts. **Prism has side lengths that measure $\frac{6}{4}$, $\frac{3}{4}$ and $\frac{2}{4}$ inches**

Cube edges have a length of $\frac{1}{4}$ inch

L Write in words what your plan of action will be. **Since each cube has a standard side edge length, multiply the numerators of the three fraction to determine the number of cubes in the prism.**

Choose an operation or operations. **Multiplication, division**

V Estimate your answer. **About 40 cubes**

Carry out your plan. **$6 \cdot 3 \cdot 2 = 36$**

The prism is composed of 36 cubes.

E Does your answer make sense? (Compare your answer to the question.) **Yes, because I found the number of cubes in the prism.**

Is your answer reasonable? (Compare your answer to the estimate.) **Yes, because 36 cubes is close to my answer of about 40 cubes.**

Is your answer accurate? (Check your work.) **Yes**

Write your answer in a complete sentence. **The prism is composed of 36 cubes.**