## Lesson 15: Find Missing Side Lengths

* Let’s use the relationship between multiplication and division to solve problems.

### Warm-up: Estimation Exploration: The Garden

What is the area of one of the large rectangles in the garden?



Record an estimate that is:

|  |  |  |
| --- | --- | --- |
| too low | about right | too high |
| $$ | $$ | $$ |

### 15.1: Find the Missing Side Length, Part 1

Complete the table.

| area(square feet) | length(feet) | width(feet) |
| --- | --- | --- |
| 816 | 24 |  |
| 1,248 |  | 48 |
|  | 23 | 253 |
| 5,796 |  | 36 |

### 15.2: Find the Missing Side Length, Part 2

1. Complete the table.

| * volume(cubic feet)
 | * base(square feet)
 | * height(feet)
 |
| --- | --- | --- |
| * 375
 | * 15
 |  |
| * 1,176
 |  | * 28
 |

1. Clare wants to find the height of a rectangular prism with the following measurements:

| * volume(cubic feet)
 | * length(feet)
 | * width(feet)
 | * height(feet)
 |
| --- | --- | --- | --- |
| * 882
 | * 6
 | * 7
 |  |

* 1. First, Clare finds the quotient $882÷6$. What could she do next to find the height?
	2. Find the missing height to finish the problem for Clare.
1. Complete the table.

| * volume(cubic feet)
 | * length(feet)
 | * width(feet)
 | * height(feet)
 |
| --- | --- | --- | --- |
| * 936
 | * 8
 |  | * 9
 |
| * 1,536
 |  | * 48
 | * 2
 |
| * 1,008
 | * 36
 |  |  |

### Section Summary

Section Summary

In this section, we learned how to divide multi-digit whole numbers. To find a quotient like $448÷16$ we broke 448 down into multiples of 16 and then added these partial quotients.

$\begin{matrix}320÷16&=20\\80÷16&=5\\48÷16&=3\\\overset{¯}{  448÷16}&\overset{¯}{  =28}\end{matrix}$

Then, we worked with a way to record these calculations that we first saw in an earlier course.





© CC BY 2021 Illustrative Mathematics®