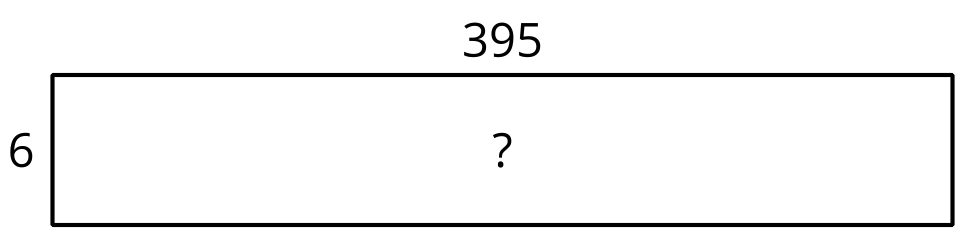
## Lesson 7: Multiply Three- and Four-digit Numbers by One-digit Numbers

* Let’s multiply three- and four-digit numbers by one-digit numbers.

### Warm-up: Estimation Exploration: Mysterious Area

What is the area of the rectangle?

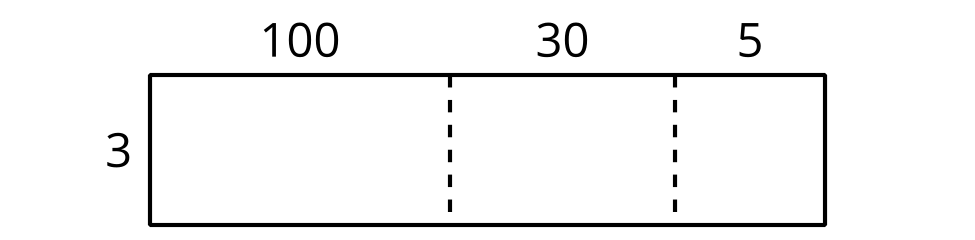


Record an estimate that is:

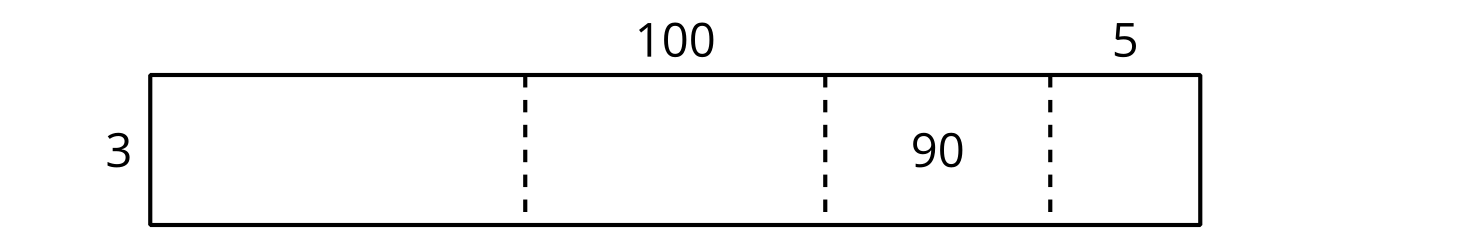
|  |  |  |
| --- | --- | --- |
| too low | about right | too high |
|  |  |  |

### 7.1: Larger Numbers to Multiply

1. Clare drew this diagram.

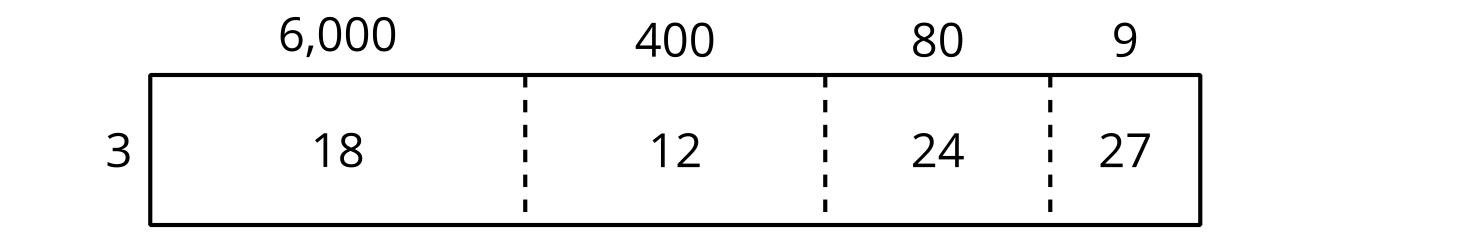
* 
  1. What multiplication expression can be represented by the diagram?
  2. Find the value of the expression. Show your reasoning.

1. Consider the expression .
   1. Draw a diagram to represent the expression.
   2. Find the value of the expression. Show your reasoning.
2. Lin drew a diagram to represent .

* 
  1. Complete Lin’s diagram.
  2. Write an expression to represent the value of each part of the diagram.
  3. Find the value of . Show your reasoning.

### 7.2: Jada’s Errors

1. Jada used a diagram to multiply and made a few errors.

* 
  1. Explain the errors Jada made.
  2. Find the value of . Show your reasoning.

1. Find the value of . Show your reasoning.
2. Find the value of . Show your reasoning.



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