## 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 $6×252$.
	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 $3×2,​135$.
* 
	1. Complete Lin’s diagram.
	2. Write an expression to represent the value of each part of the diagram.
	3. Find the value of $3×2,​135$. Show your reasoning.

### 7.2: Jada’s Errors

1. Jada used a diagram to multiply $3×6,​489$ and made a few errors.
* 
	1. Explain the errors Jada made.
	2. Find the value of $3×6,​489$. Show your reasoning.
1. Find the value of $5×699$. Show your reasoning.
2. Find the value of $8×4,​973$. Show your reasoning.



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