

MULTIPLYING MULTI-DIGIT NUMBERS

Grade 4 Mathematics

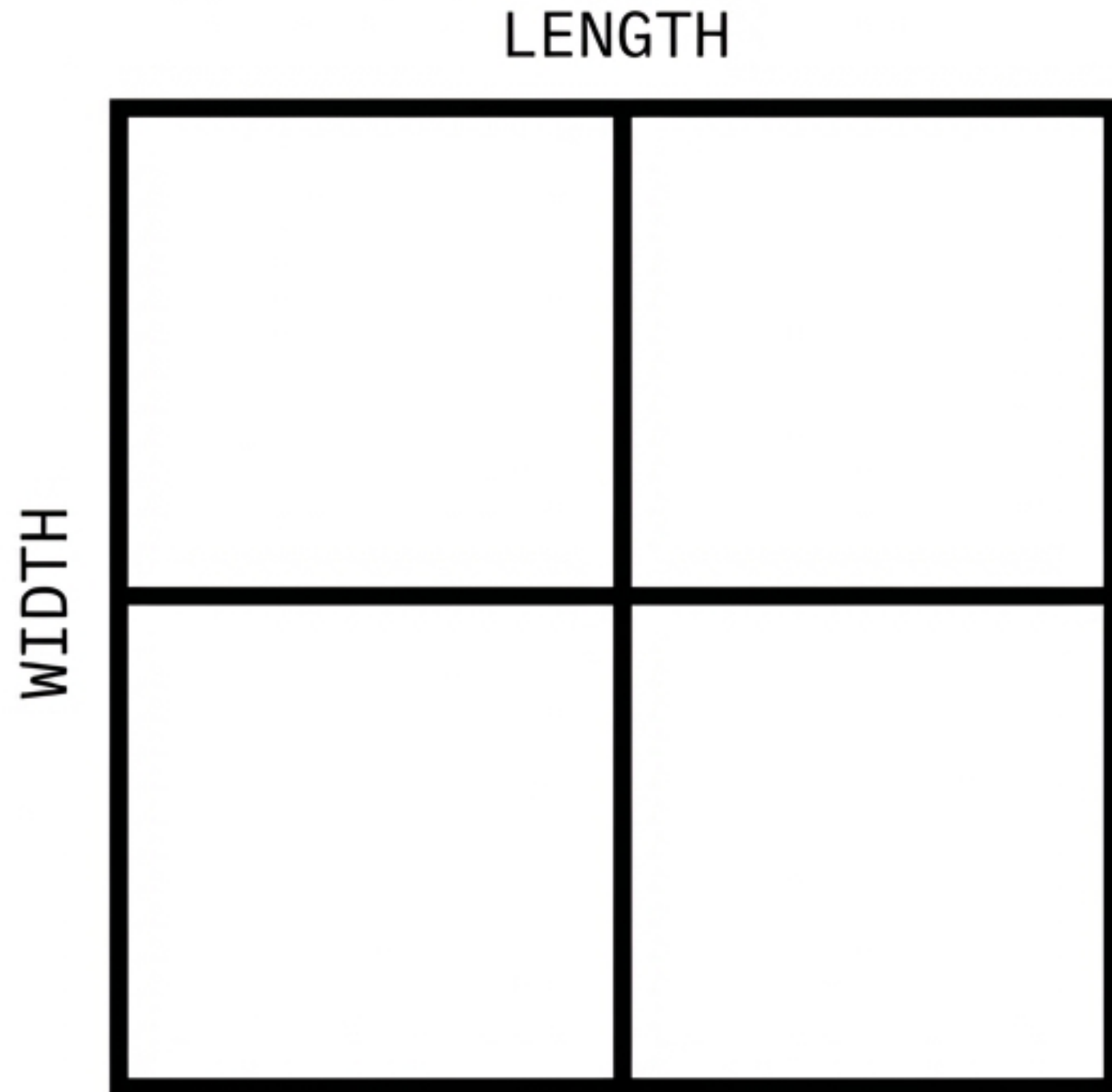
**I can MULTIPLY
two 2-digit
numbers using
AREA MODELS
and PLACE VALUE.**

Break factors apart to make them easier to multiply

$$\begin{array}{c} 12 \times 30 \\ \swarrow \quad \searrow \\ 10 \quad \quad 2 \\ (10 \times 30) + (2 \times 30) \end{array}$$

Multiplying in parts helps us see what the numbers represent.

Draw a box to organize the numbers.



This method organizes numbers by their place value.

**Place the expanded numbers
on the grid**

	50	7
20		
5		

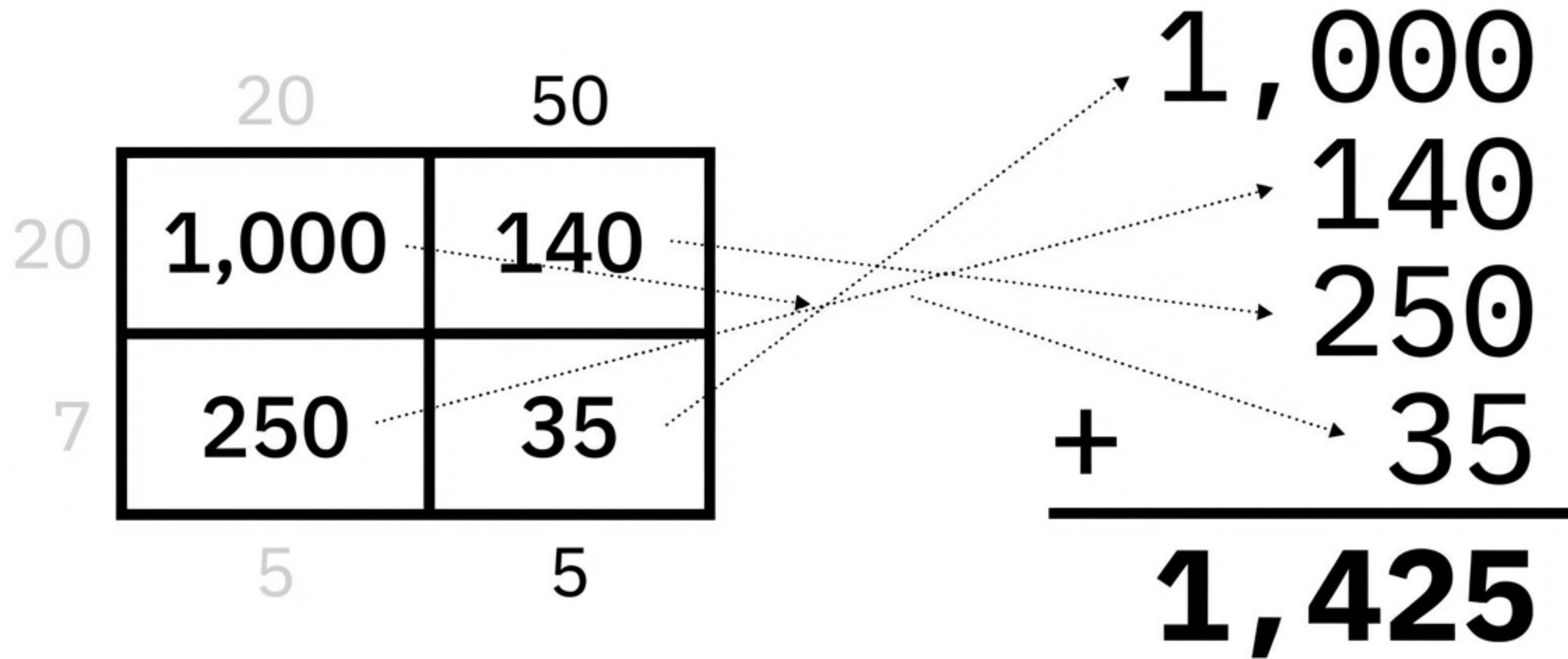
Multiply the numbers that meet in the top row

	50	7
20	$50 \times 20 = 1,000$	$7 \times 20 = 140$
5		

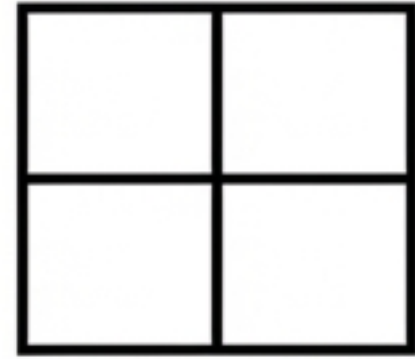
Multiply the numbers that meet in the bottom row

	50	7
20	$50 \times 20 = 1,000$	$7 \times 20 = 140$
5	$50 \times 5 = 250$	$7 \times 5 = 35$

Add the partial products to find the total



This is the Distributive Property

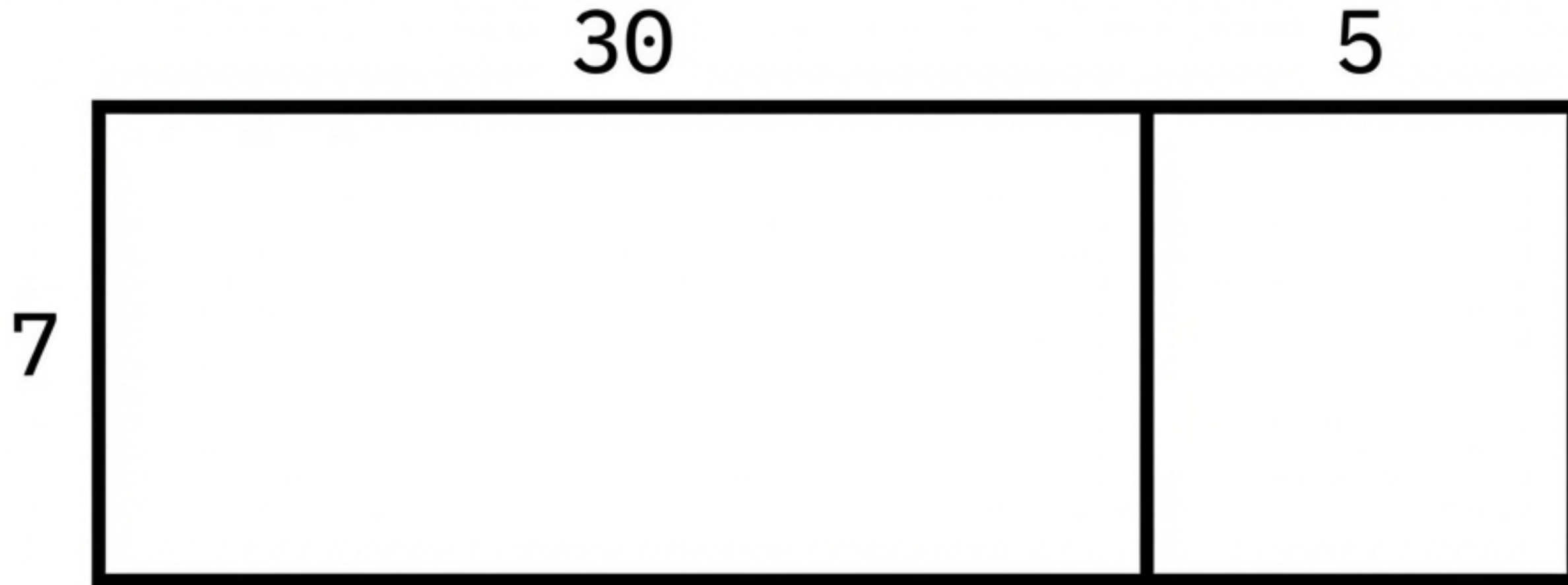


It helps us visualize all the parts of the multiplication before we add them up.

This method also helps us estimate if an answer is reasonable.

Your Turn!

Calculate 35×7



1. Partition 35 into 30 and 5.
2. Calculate the partial products.
3. Add the products to find the total.