

Break Apart and Multiply

Use the rectangles to break apart each problem into simpler products. Use colored pencils or crayons to lightly color in the smaller rectangles. Write number sentences on each rectangle. Then complete the number sentence to show your solution.

1. Use the method of breaking the product into tens and ones to solve each problem.

A.

$$3 \times 12 = \underline{\quad} \times \underline{\quad} + \underline{\quad} \times \underline{\quad}$$

$$= \underline{\quad} + \underline{\quad}$$

$$= \underline{\quad}$$

B.

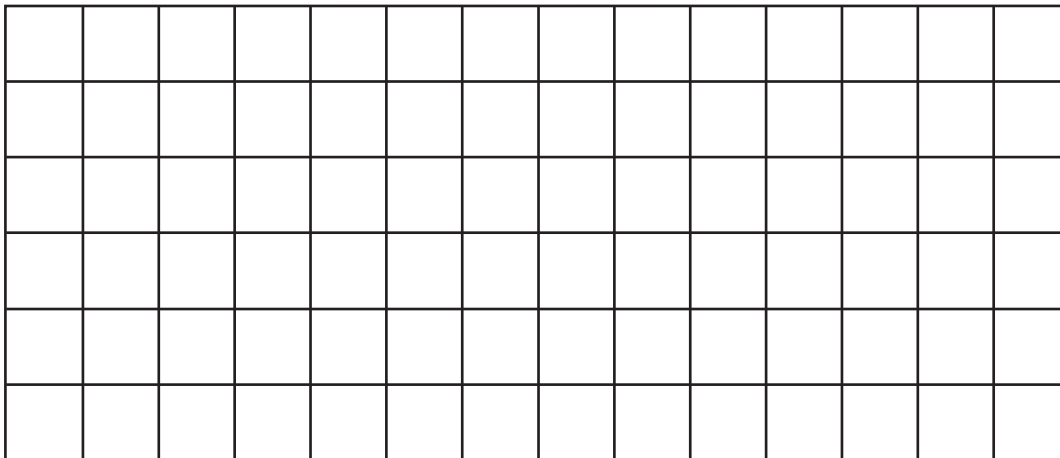
$$4 \times 15 = \underline{\quad} \times \underline{\quad} + \underline{\quad} \times \underline{\quad}$$

$$= \underline{\quad} + \underline{\quad}$$

$$= \underline{\quad}$$

2. Use the method of breaking the rectangle in half to solve each problem.

A.

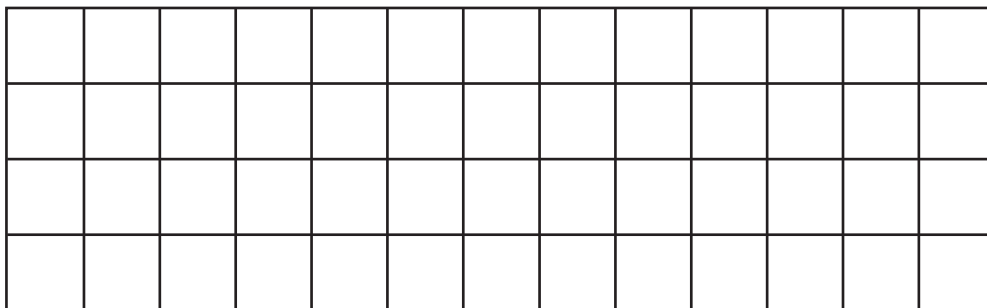


$$6 \times 14 = \underline{\quad} \times \underline{\quad} + \underline{\quad} \times \underline{\quad}$$

$$= \underline{\quad} + \underline{\quad}$$

$$= \underline{\quad}$$

B.

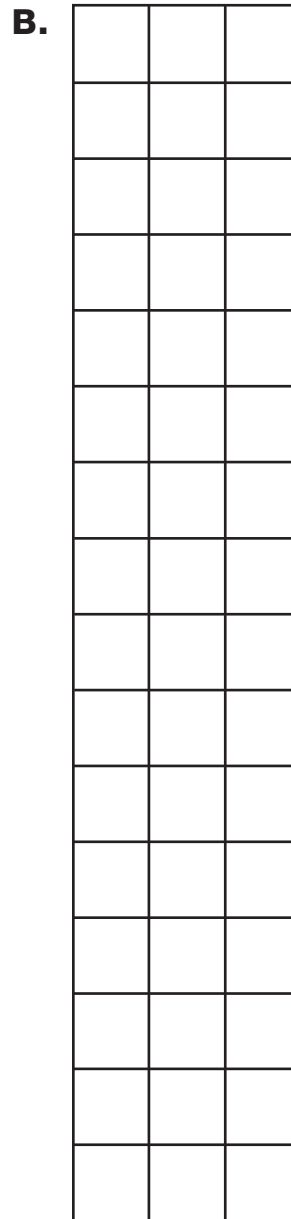
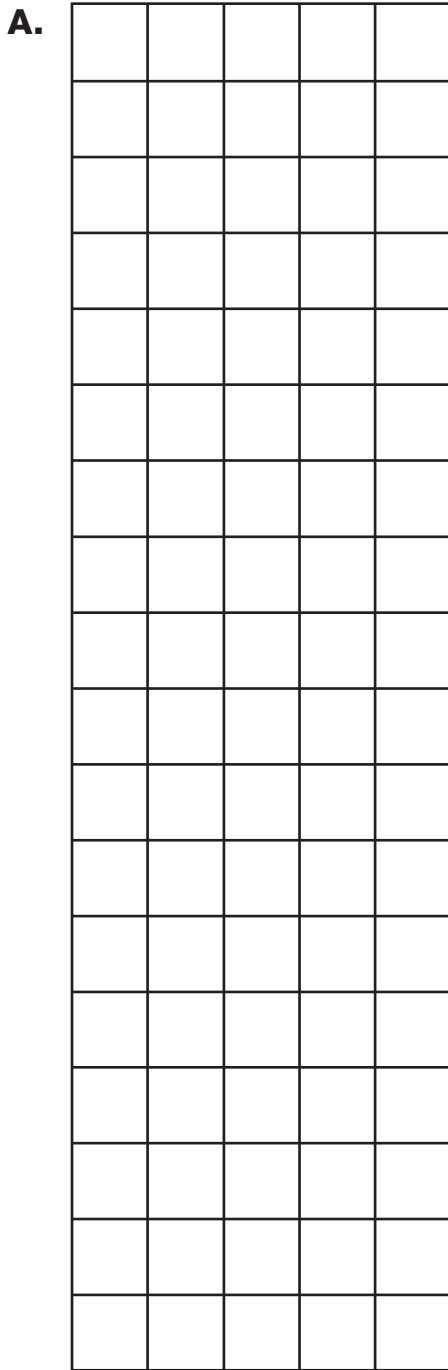


$$4 \times 13 = \underline{\quad} \times \underline{\quad} + \underline{\quad} \times \underline{\quad}$$

$$= \underline{\quad} + \underline{\quad}$$

$$= \underline{\quad}$$

3. Solve each problem by breaking apart a rectangle. Remember to color the rectangle and to label it with number sentences. Complete the number sentences to show your solutions.



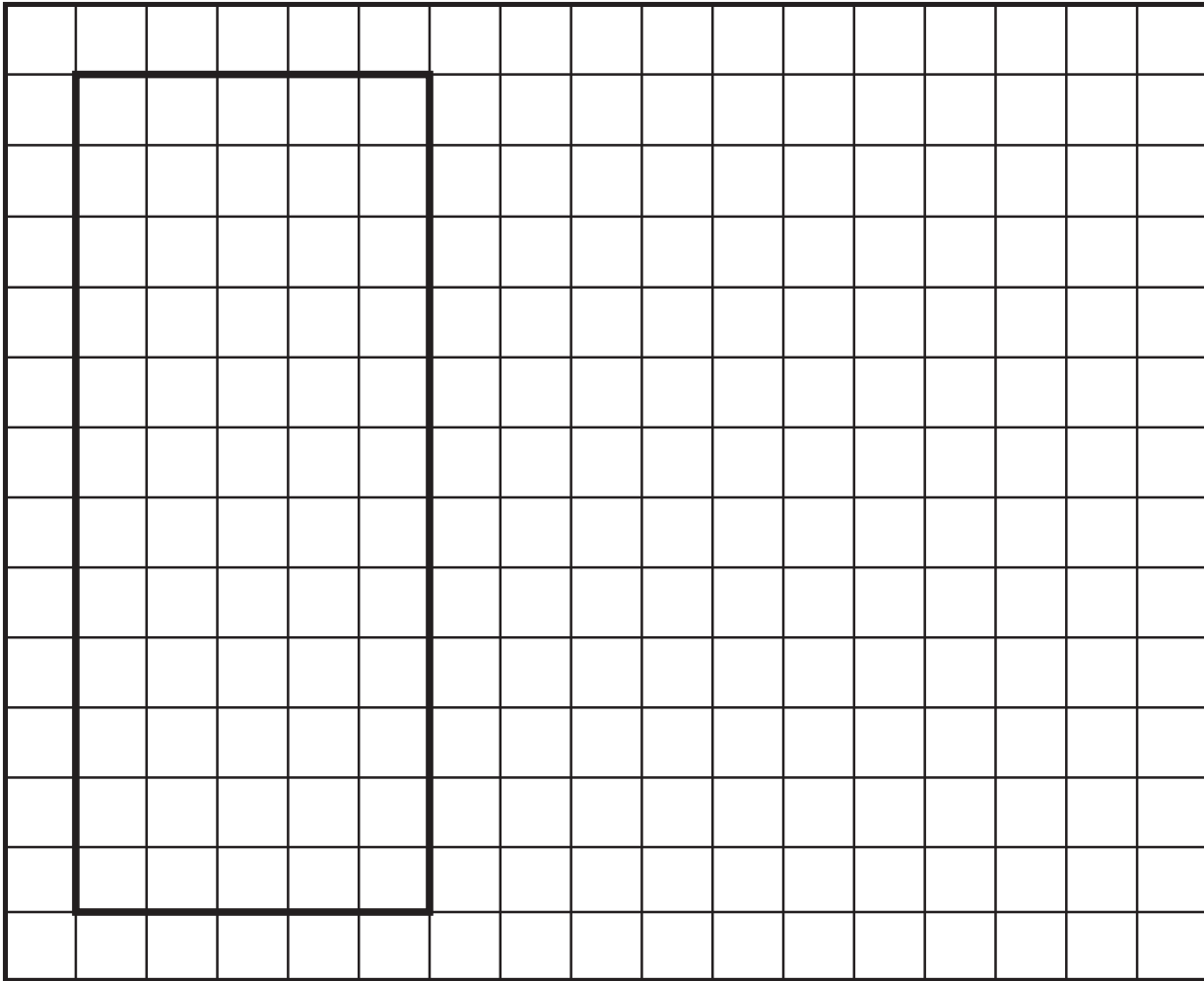
$$\begin{aligned}
 18 \times 5 &= \underline{\quad} \times \underline{\quad} + \underline{\quad} \times \underline{\quad} \\
 &= \underline{\quad} + \underline{\quad} \\
 &= \underline{\quad}
 \end{aligned}$$

$$\begin{aligned}
 16 \times 3 &= \underline{\quad} \times \underline{\quad} + \underline{\quad} \times \underline{\quad} \\
 &= \underline{\quad} + \underline{\quad} \\
 &= \underline{\quad}
 \end{aligned}$$



Check-In: Questions 4-5

4. Use the rectangles to show how to use break-apart products to solve 5×12 two different ways. One rectangle is drawn for you. Include number sentences on the rectangles to show your solutions.



$$5 \times 12 = \underline{\quad} \times \underline{\quad} + \underline{\quad} \times \underline{\quad}$$

$$= \underline{\quad} + \underline{\quad}$$

$$= \underline{\quad}$$

$$5 \times 12 = \underline{\quad} \times \underline{\quad} + \underline{\quad} \times \underline{\quad}$$

$$= \underline{\quad} + \underline{\quad}$$

$$= \underline{\quad}$$

5. Use any strategies to find the following products.

A. $70 \times 6 =$

B. $6 \times 40 =$

C. $80 \times 6 =$

D. $40 \times 7 =$

E. $80 \times 4 =$

F. $70 \times 8 =$

G. Show or tell how you solved the problem in Question C.

**Break Apart and Multiply
Check-In: Questions 4–5
Feedback Box**

	Expectation	Check In	Comments
Represent 2-digit by 1-digit multiplication problems using rectangular arrays, counters, and number sentences. [Q# 4–5]	E1		
Show connections between models and strategies for multiplication. [Q# 4–5]	E2		
Solve multidigit multiplication problems using mental math strategies. [Q# 4–5]	E3		
Multiply one-digit whole numbers by multiples of ten. [Q# 5]	E5		
Solve multiplication problems by breaking products into the sum of simpler products. [Q# 4–5]	E7		
Demonstrate fluency with multiplication for the last six facts. [Q# 5]	E14		

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