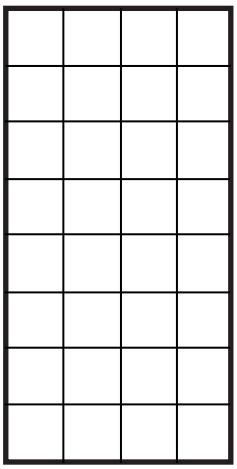
Name _____ Date _____

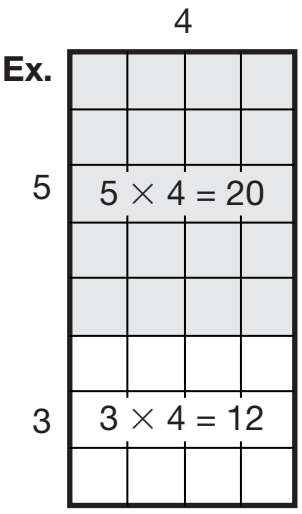
Exploring Break-Apart Products

1. Find the number of squares in the 8 × 4 rectangle below.



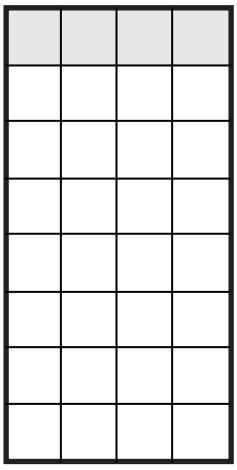
2. The 8 rows of the rectangles below are broken into two parts. Write a number sentence on each part that shows the number of squares. Then add the two parts together to find the total number of squares in the large rectangle. The first one is an example.

Ex.

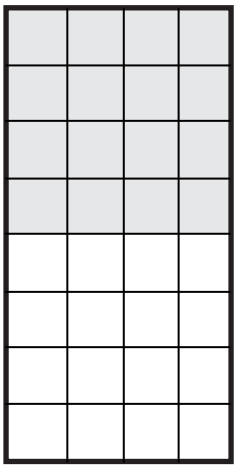


8 × 4 = 20 + 12 = 32

A.



B.



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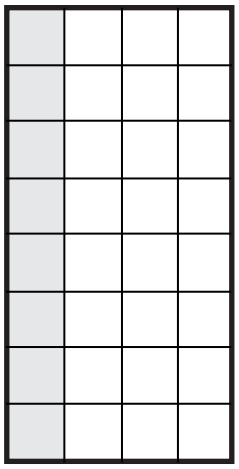
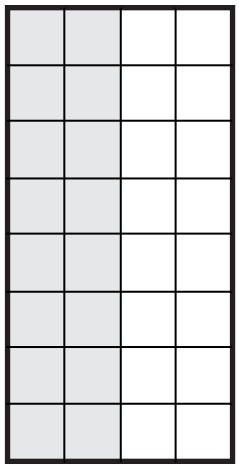
3. The 4 columns of the rectangles below are broken into two parts.

- Write a number sentence on each part that shows the number of squares.
- Add the two parts together to find the total. Write this number sentence.

A.



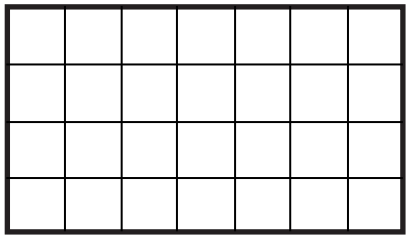
B.



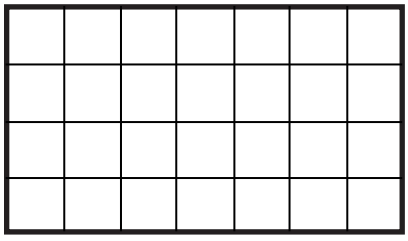
4. Break the 4 × 7 rectangles below into two parts in two different ways.

- Choose numbers that will make multiplying 4 × 7 easier.
- Write a number sentence on each part that shows the number of squares.
- Write a number sentence that shows how you find the total number of squares in the large rectangle.

A.



B.



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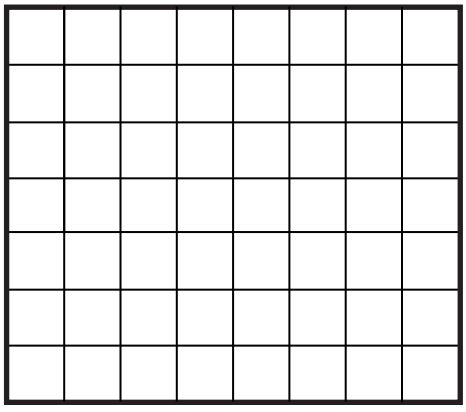
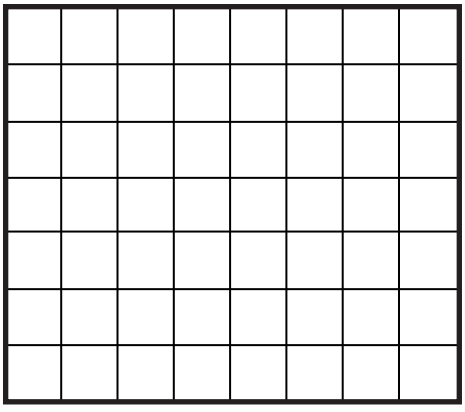
5. Break apart the 7 × 8 rectangles in two different ways.

- Choose numbers that will make multiplying 7 × 8 easier.
- Write number sentences to show your work.

A.



B.



Name _____ Date _____

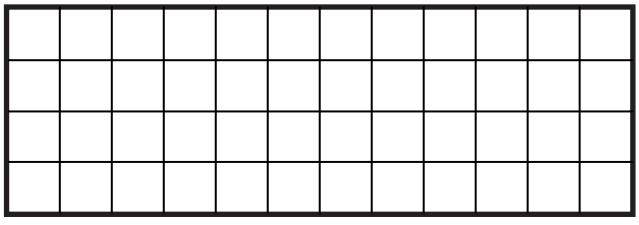
Larger Break-Apart Products

Each problem below shows the same rectangle twice. Find the number of small squares in each rectangle using the break-apart method.

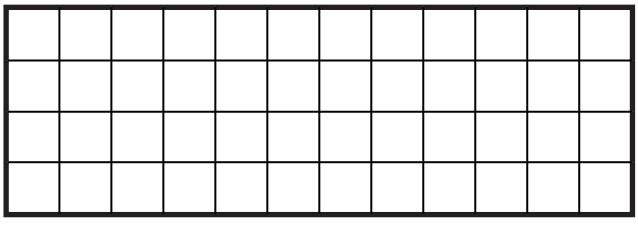
- Break Rectangle A of each problem into two parts that make the multiplication easier.
- Write number sentences on the smaller rectangles to show the number of squares in each part.
- Write a number sentence to show how to find the total number of squares in the large rectangle.
- Solve the problem again using Rectangle B. This time break the rectangle into different parts.

6. 4×12

A.

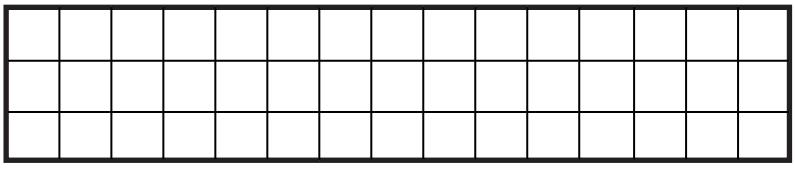


B.

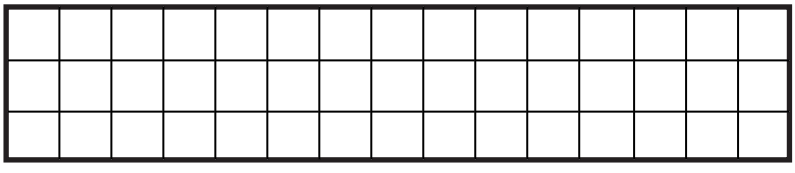


7. 3×15

A.



B.



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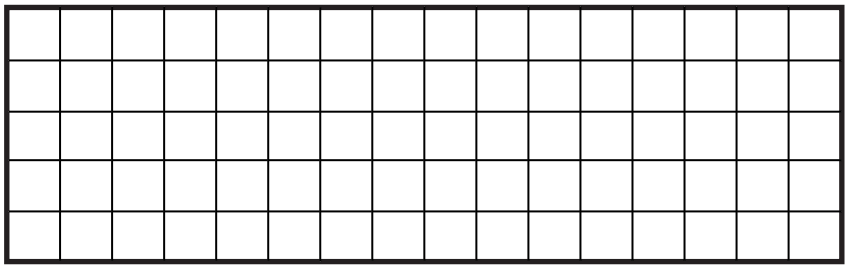
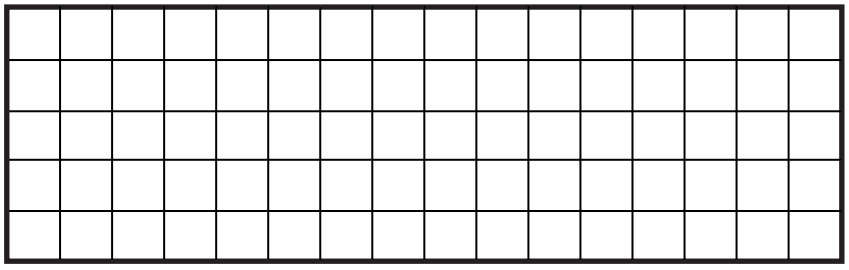
8. 5×16

A.

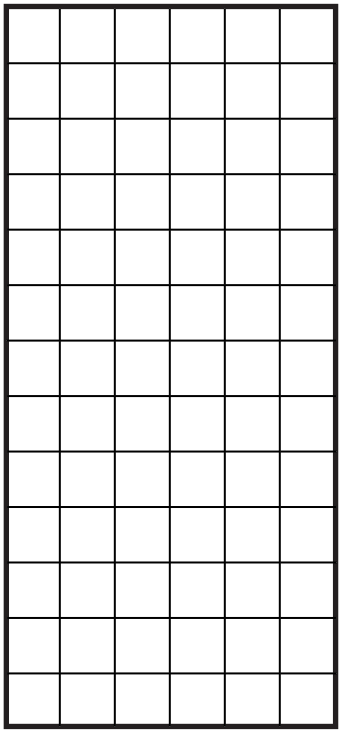


B.



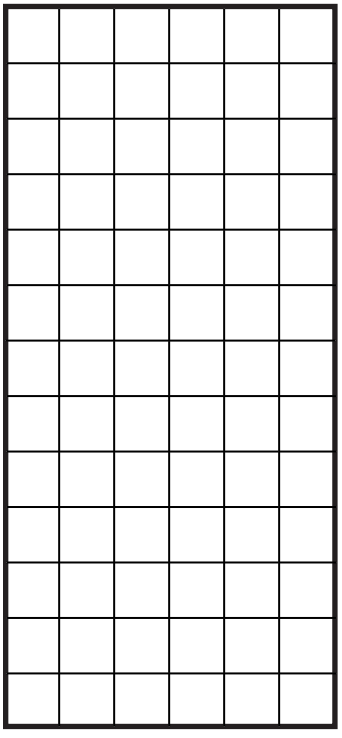
9. 13×6

A.



Number Sentence:

B.



Number Sentence: