

Name _____

MY Homework

Lesson 1

Hands On: Take Apart to Multiply

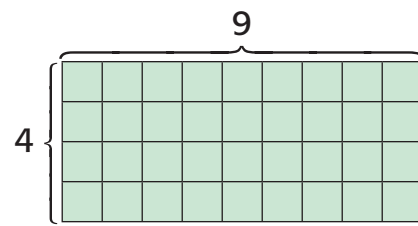
Homework Helper



Need help? connectED.mcgraw-hill.com

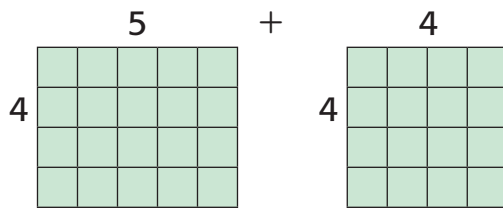
Find 4×9 .

1 Make an array to model 4×9 .



2 Decompose one factor.

Take apart the 9 to make 5 and 4.



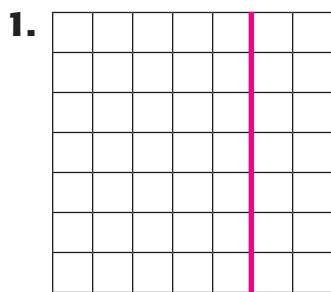
3 Find the product for each part.

$$\begin{aligned} 4 \times 9 &= (4 \times 5) + (4 \times 4) \\ &= 20 + 16 \\ &= 36 \end{aligned}$$

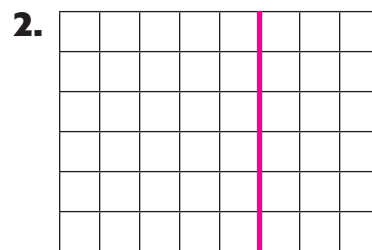
So, $4 \times 9 = 36$.

Practice Sample decompositions: 1, 2

Decompose one factor. Color the array two colors to represent your numbers. Then find the product for each part and add.



$$\begin{aligned} 7 \times 7 &= (7 \times 5) + (7 \times 2) \\ &= 35 + 14 \\ &= 49 \end{aligned}$$



$$\begin{aligned} 6 \times 8 &= (6 \times 5) + (6 \times 3) \\ &= 30 + 18 \\ &= 48 \end{aligned}$$

Decompose one factor. Find each product. Then add. Decompose the fact a different way below. **Sample decompositions: 3, 4**

$$\begin{aligned}
 3. \quad 8 \times 8 &= (8 \times \underline{5}) + (8 \times \underline{3}) \\
 &= \underline{40} + \underline{24} \\
 &= \underline{64}
 \end{aligned}$$

Another way:

$$\begin{aligned}
 8 \times 8 &= (8 \times \underline{4}) + (8 \times \underline{4}) \\
 &= \underline{32} + \underline{32} \\
 &= \underline{64}
 \end{aligned}$$

$$\begin{aligned}
 4. \quad 5 \times 7 &= (5 \times \underline{5}) + (5 \times \underline{2}) \\
 &= \underline{25} + \underline{10} \\
 &= \underline{35}
 \end{aligned}$$


Another way:

$$\begin{aligned}
 5 \times 7 &= (5 \times \underline{3}) + (5 \times \underline{4}) \\
 &= \underline{15} + \underline{20} \\
 &= \underline{35}
 \end{aligned}$$



Problem Solving

Decompose one factor. Find each product. Then add.

- 5. PRACTICE**  **Identify Structure** Orlando's baby sister takes 3 naps a day. How many naps does she take in 9 days?

27 naps

- 6.** Carli gets to the bus stop 5 minutes early each morning. How many minutes does she wait at the bus stop in 5 days?

25 minutes

- 7.** Every Monday, Wednesday, and Friday, Mr. Brennan walks 2 miles and jogs 4 miles. What is the total number of miles Mr. Brennan walks and jogs in two weeks?

36 miles

My Work!