

Name: _____

Use Breaking Apart to Find the Product

Have you ever come across a multiplication problem, in which you were unsure of the answer? How did you go about figuring out the answer? One very reliable way to do this is to take one of the factors and break it apart into two factors that we are more comfortable working with. Let's say that we weren't sure of what 3×5 was. We could break apart the 3 to make two easier problems to solve!

<p>Original Problem:</p> $\underline{3 \times 5 =}$	<p>Breaking it apart:</p> $\underline{1 \times 5 = 5} \qquad \underline{2 \times 5 = 10}$ <p>Add up the products:</p> $\begin{array}{r} 10 \\ + 5 \\ \hline 15 \end{array}$
<p>Original Problem:</p> $\underline{8 \times 3 =}$	<p>Breaking it apart:</p> $\underline{\quad \times \quad =} \qquad \underline{\quad \times \quad =}$ <p>Add up the products:</p> $\begin{array}{r} + \\ \hline \end{array}$
<p>Original Problem:</p> $\underline{\quad \times \quad =}$	<p>Breaking it apart:</p> $\underline{\quad \times \quad =} \qquad \underline{\quad \times \quad =}$ <p>Add up the products:</p> $\begin{array}{r} + \\ \hline \end{array}$

Original Problem:

$$\underline{\quad X \quad} =$$

Breaking it apart:

$$\underline{\quad X \quad} = \quad \underline{\quad X \quad} =$$

Add up the products:

$$+ \underline{\quad}$$

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$$\underline{\quad X \quad} =$$

Breaking it apart:

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$$+ \underline{\quad}$$

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Original Problem:

$$\underline{\quad X \quad} =$$

Breaking it apart:

$$\underline{\quad X \quad} = \quad \underline{\quad X \quad} =$$

Add up the products:

$$+ \underline{\quad}$$