

Multiply by Whole Tens and Hundreds

<p>Something to ponder:</p> $\begin{array}{r} 5 \\ 58 \\ \times 7 \\ \hline \end{array}$ <p>$7 \times 58 = 406.$ What would 70×58 be? Can you guess?</p>	<p>Something to ponder:</p> $\begin{array}{r} 5 \\ 16 \\ \times 9 \\ \hline \end{array}$ <p>$16 \times 9 = 144.$ What would 160×90 be? Can you guess?</p>
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Don't read more until you think about the questions above!

<p>70×58 $= 10 \times (7 \times 58)$ so the result to 70×58 is ten times the result to 7×58. Since $7 \times 58 = 406$, then 70×58 is 4,060. Just tag a zero! Similarly, 700×58 would be 40,600. We tagged two zeros!</p>	<p>160×90 $= 10 \times (16 \times 9) \times 10$ so the result to 160×90 is 10×10 or a <i>hundred</i> times the result to 16×9. Since $16 \times 9 = 144$, then 160×90 is 14,400. Just tag two zeros! Similarly, $160 \times 900 = 144,000$. We tag <i>three</i> zeros!</p>
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1. Use the above method to multiply these:

a. 60×87

b. 20×820

c. 510×400

d. $56 \times 3,000$

2. Solve the problems.

a. A crate of apples weighs 20 kg.
How much does 65 crates weigh?

b. One crate contains apples laid out in four layers.
There are 25 apples in each layer.
How many apples are in a crate?

c. A store owner sold 60 kg of apples to one customer.
How many apples did the customer get?