

Multiplication Strategies

Single digit by double digit strategies:

Box strategy

	20	7	
9	20x9= 180	7x9= 63	$\begin{array}{r} 180 \\ +63 \\ \hline 243 \end{array}$

Break Apart Strategy

$$9 \times 27 = \underline{\hspace{2cm}}$$

$$\begin{array}{r} 9 \times 20 = 180 \\ + 9 \times 7 = 63 \\ \hline 9 \times 27 = 243 \end{array}$$

Double Digit by Double digit

Box Strategy

$$12 \times 16 = 192$$

	10	6	
10	10x10= 100	10x6= 60	$\begin{array}{r} 100 \\ +60 \\ \hline 160 \end{array}$
2	10x2= 20	6x2= 12	$\begin{array}{r} 160 \\ +32 \\ \hline 192 \end{array}$

More Advance Strategies

Double / Half

$$\begin{array}{l} 8 \times 6 = 48 \\ 16 \times 3 = 48 \end{array}$$

Since 8 is $\frac{1}{2}$ of 16 and 3 doubled is 6, the answers to both problems is the same.

$$\begin{array}{l} 16 \times 3 = 48 \\ 16 \times 6 = 96 \end{array}$$

Since 3 doubled equals 6, the answers should be doubled because they are both multiplied by 16.

Using multiplication Clusters

$$\begin{array}{l} 4 \times 10 = 40 \\ 4 \times 40 = 160 \\ 4 \times 3 = 12 \\ 2 \times 43 = 86 \end{array}$$

Final problem:
 $4 \times 43 = 172$

Use smaller problems to help you work your way up to the final problem.