

Multiply Using Partial Products

Use partial products to multiply.

Multiply. $7 \times \$332$

Step 1 Estimate the product.

$$332 \text{ rounds to } 300; 7 \times \$300 = \underline{\$2,100}.$$

Step 2 Multiply the 3 hundreds, or 300, by 7.

$$\begin{array}{r} \$332 \\ \times 7 \\ \hline \end{array}$$

or

$$\begin{array}{r} \$300 \\ \times 7 \\ \hline \$2,100 \end{array}$$

Step 3 Multiply the 3 tens, or 30, by 7.

$$\begin{array}{r} \$332 \\ \times 7 \\ \hline \end{array}$$

or

$$\begin{array}{r} \$30 \\ \times 7 \\ \hline \$210 \end{array}$$

Step 4 Multiply the 2 ones, or 2, by 7.

$$\begin{array}{r} \$332 \\ \times 7 \\ \hline \end{array}$$

or

$$\begin{array}{r} \$2 \\ \times 7 \\ \hline \$14 \end{array}$$

Step 5 Add the partial products.

$$\$2,100 + \$210 + \$14 = \underline{\$2,324}$$

So, $7 \times \$332 = \$2,324$. Since $\$2,324$ is close to the estimate of $\$2,100$, it is *reasonable*.

Estimate. Then record the product.

1 Estimate: _____

$$\begin{array}{r} 181 \\ \times 2 \\ \hline \end{array}$$

2 Estimate: _____

$$\begin{array}{r} 156 \\ \times 4 \\ \hline \end{array}$$

3 Estimate: _____

$$\begin{array}{r} \$210 \\ \times 5 \\ \hline \end{array}$$

4 Estimate: _____

$$\begin{array}{r} 303 \\ \times 6 \\ \hline \end{array}$$

5 Estimate: _____

$$\begin{array}{r} \$427 \\ \times 2 \\ \hline \end{array}$$

6 Estimate: _____

$$\begin{array}{r} \$367 \\ \times 5 \\ \hline \end{array}$$