

# Multiply with Regrouping

**Estimate. Then use regrouping to find  $28 \times 43$ .**

**Step 1** Round to estimate the product.  $30 \times 40 = 1,200$

**Step 2** Think:  $28 = 2$  tens 8 ones.  
Multiply 43 by 8 ones.  
 $8 \times 3 = 24$ . Record the 4. Write the regrouped 2 above the tens place.  
 $8 \times 40 = 320$ . Add the regrouped tens:  $320 + 20 = 340$ .

$$\begin{array}{r} \cancel{2} \\ 43 \\ \times 28 \\ \hline 344 \end{array} \longleftarrow 8 \times 43$$

**Step 3** Multiply 43 by 2 tens.  
 $20 \times 3 = 60$  and  $20 \times 40 = 800$ .  
Record 860 below 344.

$$\begin{array}{r} \cancel{2} \\ 43 \\ \times 28 \\ \hline 344 \\ 860 \end{array} \longleftarrow 20 \times 43$$

**Step 4** Add the partial products.

$$1,204 \longleftarrow 344 + 860$$

So,  $28 \times 43 = \underline{1,204}$ . 1,204 is close to 1,200. The answer is **reasonable**.

**Estimate. Then find the product.**

1. Estimate: \_\_\_\_\_

2. Estimate: \_\_\_\_\_

3. Estimate: \_\_\_\_\_

$$\begin{array}{r} 36 \\ \times 12 \\ \hline \end{array}$$

$$\begin{array}{r} 43 \\ \times 29 \\ \hline \end{array}$$

$$\begin{array}{r} 51 \\ \times 47 \\ \hline \end{array}$$