

# Multiplying 2-Digit by 2-Digit Numbers

Find  $43 \times 26$ .

**Step 1:**

Multiply by the ones.  
Regroup if necessary.

**What You Think**

$6 \times 3$  ones = 18 ones  
Regroup 18 ones as 1 ten and 8 ones.

$6 \times 4$  tens = 24 tens  
 $24$  tens + 1 ten = 25 tens  
Regroup 25 tens as 2 hundreds and 5 tens.

**What You Write**

$$\begin{array}{r} 1 \\ 43 \\ \times 26 \\ \hline 258 \end{array}$$

**Step 2:**

Multiply by the tens.  
Regroup if necessary.

**What You Think**

$20 \times 3$  ones = 60 ones  
Regroup 60 ones as 6 tens.

$20 \times 4$  tens = 80 tens  
Regroup 80 tens as 8 hundreds.

$$\begin{array}{r} 1 \\ 43 \\ \times 26 \\ \hline 258 \\ \hline 860 \end{array}$$

**Step 3:**

Add the partial products.

**What You Think**

$6 \times 43 = 258$   
 $20 \times 43 = 860$

$$\begin{array}{r} 1 \\ 43 \\ \times 26 \\ \hline 258 \\ + 860 \\ \hline 1,118 \end{array}$$

partial products

Find the product.

1. 
$$\begin{array}{r} 38 \\ \times 12 \\ \hline \end{array}$$

2. 
$$\begin{array}{r} 64 \\ \times 33 \\ \hline \end{array}$$

3. 
$$\begin{array}{r} 49 \\ \times 27 \\ \hline \end{array}$$

4. 
$$\begin{array}{r} 85 \\ \times 15 \\ \hline \end{array}$$

5. 
$$\begin{array}{r} 26 \\ \times 21 \\ \hline \end{array}$$

6. 
$$\begin{array}{r} 73 \\ \times 19 \\ \hline \end{array}$$

7. 
$$\begin{array}{r} 57 \\ \times 28 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 91 \\ \times 86 \\ \hline \end{array}$$

# Multiplying 2-Digit by 2-Digit Numbers

1. 
$$\begin{array}{r} 56 \\ \times 34 \\ \hline \end{array}$$

2. 
$$\begin{array}{r} 45 \\ \times 76 \\ \hline \end{array}$$

3. 
$$\begin{array}{r} 35 \\ \times 15 \\ \hline \end{array}$$

4. 
$$\begin{array}{r} 47 \\ \times 94 \\ \hline \end{array}$$

9. To pay for a sofa, Maddie made a payment of 64 dollars each month for one year. How much did the sofa cost? \_\_\_\_\_
10. **Geometry** To find the volume of a box, you multiply the length times the width times the height. What is the volume, in cubic feet, of a box that is 3 ft long, 8 ft wide, and 16 ft high? \_\_\_\_\_
11. **Estimation** Katie is in charge of buying juice for the teachers' breakfast party. If one teacher will drink between 18 and 22 ounces of juice, and there are 32 teachers, which is the best estimate for the amount of juice Katie should buy?
- A about 200 ounces
  - B about 400 ounces
  - C about 600 ounces
  - D about 800 ounces
12. **Explain It** Is 7,849 a reasonable answer for  $49 \times 49$ ? Why or why not?