

**AZ Vocabulary**

**1. The Associative Property of Multiplication** states factors can be grouped differently and the product remains the same. Changing the grouping of the factors changes the factors that are multiplied first.

Use the Associative Property of Multiplication to find  $2 \times 30$ .

$2 \times 30 = 2 \times (3 \times 10)$	Break apart 30.
$= (2 \times \quad) \times \quad$	Group the factors of the basic fact.
$= \quad \times 10$	Multiply the factors inside the parentheses.
$= \quad$	Find the product.

**2. A multiple** is the product of a given factor and any whole number.

Find the next three multiples in each number pattern.

Multiples of 10: 10, 20, 30, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

Multiples of 100: 100, 200, 300, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

Use the Associative Property of Multiplication to find the product.

<b>3.</b> $4 \times 600 = 4 \times (\quad \times 100)$	Break apart the multiple of 100.
$= (\quad \times \quad) \times \quad$	Group the factors in a different way.
$= \quad \times 100$	Find the product inside the parentheses.
$= \quad$	Find the final product. Think: $24 \times 1$ , and then write 2 zeros.

Multiply by multiples of 10, 100, and 1,000.

**4.**  $6 \times 50 =$   
 $6 \times 500 =$   
 $6 \times 5,000 =$

**5.**  $7 \times 80 =$   
 $7 \times 800 =$   
 $7 \times 8,000 =$

**On the Back!**

**6.** Explain how you can use the basic fact  $4 \times 8 = 32$  to help find  $4 \times 80$ ,  $4 \times 800$ , and  $4 \times 8,000$ .

**AZ** Vocabulary

1. The **Associative Property of Multiplication** states factors can be grouped differently and the product remains the same. Changing the grouping of the factors changes the factors that are multiplied first.

Use the Associative Property of Multiplication to find  $2 \times 30$ .

$$2 \times 30 = 2 \times (3 \times 10)$$

$$= (2 \times 3) \times 10$$

$$= 6 \times 10$$

$$= 60$$

Break apart 30.

Group the factors of the basic fact.

Multiply the factors inside the parentheses.

Find the product.

2. A **multiple** is the product of a given factor and any whole number.

Find the next three multiples in each number pattern.

Multiples of 10: 10, 20, 30, **40, 50, 60**

Multiples of 100: 100, 200, 300, **400, 500, 600**

Use the Associative Property of Multiplication to find the product.

$$3. \quad 4 \times 600 = 4 \times (6 \times 100)$$

$$= (4 \times 6) \times 100$$

$$= 24 \times 100$$

$$= 2,400$$

Break apart the multiple of 100.

Group the factors in a different way.

Find the product inside the parentheses.

Find the final product. Think:  $24 \times 1$ , and then write 2 zeros.

Multiply by multiples of 10, 100, and 1,000.

$$4. \quad 6 \times 50 = 300$$

$$6 \times 500 = 3,000$$

$$6 \times 5,000 = 30,000$$

$$5. \quad 7 \times 80 = 560$$

$$7 \times 800 = 5,600$$

$$7 \times 8,000 = 56,000$$

**On the Back!**

6. Explain how you can use the basic fact  $4 \times 8 = 32$  to help find  $4 \times 80$ ,  $4 \times 800$ , and  $4 \times 8,000$ . **Check students' work.**

**AZ Vocabulary**

**1. Rounding** is a process that determines which multiple of 10, 100, 1,000, and so on a number is closest to.

Round 3,524 to the nearest thousand.

Look at the digit to the right of the thousands place.

Add 1 to the digit in the rounding place. Then write 3 zeros.

3,524 rounded to the nearest thousand is \_\_\_\_\_

Rounding Rules		
If the digit to the right of the rounding place is:	First,	Then,
less than 5  8,4 <u>5</u> 3	Keep the digit in the rounding place the same.  →	Change all of the digits to the right of the rounding place to zeros.  8,000
5 or greater  8, <u>5</u> 43	Add 1 to the digit in the rounding place.  →	Change all of the digits to the right of the rounding place to zeros.  9,000

Use rounding to estimate  $6 \times 789$ .

2. Round 789 to the nearest hundred.

$6 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

Use rounding to estimate  $4 \times 6,251$ .

3. Round 6,251 to the nearest thousand.

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

You can also use rounding to check if a product is reasonable.

Check if  $5 \times 3,011 = 15,055$  is reasonable.

4. Round 3,011 to the nearest thousand.

$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$   
 $5 \times 3,011$  is about \_\_\_\_\_

15,055 is close to \_\_\_\_\_, so the answer is \_\_\_\_\_.

**On the Back!**

5. Estimate the product of  $7 \times 417$  by using rounding.

**AZ** Vocabulary

1. **Rounding** is a process that determines which multiple of 10, 100, 1,000, and so on a number is closest to.

Round 3,524 to the nearest thousand.

Look at the digit to the right of the thousands place.

Add 1 to the digit in the rounding place. Then write 3 zeros.

3,524 rounded to the nearest thousand is **4,000**.

Rounding Rules		
If the digit to the right of the rounding place is:	First,	Then,
less than 5  8,453	Keep the digit in the rounding place the same.  →	Change all of the digits to the right of the rounding place to zeros.  8,000
5 or greater  8,543	Add 1 to the digit in the rounding place.  →	Change all of the digits to the right of the rounding place to zeros.  9,000

Use rounding to estimate  $6 \times 789$ .

2. Round 789 to the nearest hundred. **800**  
 $6 \times \underline{800} = \underline{4,800}$

Use rounding to estimate  $4 \times 6,251$ .

3. Round 6,251 to the nearest thousand. **6,000**  
 $\underline{4} \times \underline{6,000} = \underline{24,000}$

You can also use rounding to check if a product is reasonable.

Check if  $5 \times 3,011 = 15,055$  is reasonable.

4. Round 3,011 to the nearest thousand. **3,000**  
 $\underline{5} \times \underline{3,000} = \underline{15,000}$   
 $5 \times 3,011$  is about **15,000**.  
 $15,055$  is close to **15,000**, so the answer is **reasonable**.

**On the Back!**

5. Estimate the product of  $7 \times 417$  by using rounding.  
 $\underline{7} \times \underline{400} = \underline{2,800}$



**Vocabulary**

1. A **numerical expression** contains numbers and at least one operation.

Which of the following are numerical expressions? Write Yes or No.

5,178 \_\_\_\_\_  $6 \times 80$  \_\_\_\_\_

$26 - 15 + 4$  \_\_\_\_\_  $77 = 77$  \_\_\_\_\_

2. The **Distributive Property** says that multiplying a sum (or difference) by a number is the same as multiplying each number in the sum (or difference) by that number and adding (or subtracting) the products.

Use the Distributive Property to rewrite  $3 \times 546$ .

$$3 \times 546 = 3 \times (500 + \quad + \quad)$$

Break apart 546.

$$= (3 \times \quad) + (3 \times \quad) + (3 \times \quad)$$

Distribute the 3 to each addend.

3.  $4 \times 613 = 4 \times (\quad + \quad + \quad)$  Break apart 613.

$$= (\quad \times 600) + (\quad \times 10) + (\quad \times 3)$$

Distribute the 4.

$$= \quad + \quad + \quad$$

Multiply. Then add.

$$= \quad$$

4.  $5 \times 792 = 5 \times (800 - \quad)$  Use compatible numbers.

$$= (5 \times \quad) - (5 \times \quad)$$

Distribute the 5.

$$= \quad - \quad$$

Multiply. Then subtract.

$$= \quad$$

**On the Back!**

5. Use the Distributive Property to find  $6 \times 296$ .

**AZ** Vocabulary

1. **Compensation** is a mental-math strategy. To use compensation, choose numbers that are close to the numbers in the problem, to make the computation easier, and then adjust the answer.

Use compensation to find  $3 \times 58$ .

$$3 \times 60 = \underline{\hspace{2cm}}$$

$$3 \times 2 = 6$$

Adjust the answer by subtracting

$$180 - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$\text{So, } 3 \times 58 = \underline{\hspace{2cm}}.$$

Think: 60 is close to 58. Find  $3 \times 60$  and adjust the answer.

Think: Since 60 is 2 more than 58, the estimate is greater than the actual product. Multiply 3 by 2 to determine the amount that needs to be subtracted from the estimated product.

2. Use compensation to find  $6 \times 302$ .

$$6 \times 300 = \underline{\hspace{2cm}}$$

$$6 \times 2 = 12$$

Adjust the answer by adding

$$1,800 + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

Think: 302 is close to 300. Find  $6 \times 300$  and adjust the answer.

Think: Since 300 is 2 less than 302, the estimate is less than the actual product. Multiply 6 by 2 to determine the amount that needs to be added to the estimated product.

3. Use compensation to find  $4 \times 252$ .

$$4 \times 250 = \underline{\hspace{2cm}} \qquad 4 \times 2 = \underline{\hspace{2cm}}$$

$$1,000 + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

4. Use compensation to find  $2 \times 895$ .

$$2 \times 900 = \underline{\hspace{2cm}} \qquad 2 \times 5 = \underline{\hspace{2cm}}$$

$$1,800 - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

5. Use compensation to find  $8 \times 998$ .

**On the Back!**

6. Use compensation to find  $8 \times 115$ .

**AZ** Vocabulary

1. **Compensation** is a mental-math strategy. To use compensation, choose numbers that are close to the numbers in the problem, to make the computation easier, and then adjust the answer.

Use compensation to find  $3 \times 58$ .

$$3 \times 60 = \underline{180}$$

$$3 \times 2 = 6$$

Adjust the answer by subtracting

$$180 - \underline{6} = \underline{174}$$

$$\text{So, } 3 \times 58 = \underline{174}$$

Think: 60 is close to 58. Find  $3 \times 60$  and adjust the answer.

Think: Since 60 is 2 more than 58, the estimate is greater than the actual product. Multiply 3 by 2 to determine the amount that needs to be subtracted from the estimated product.

2. Use compensation to find  $6 \times 302$ .

$$6 \times 300 = \underline{1,800}$$

$$6 \times 2 = 12$$

Adjust the answer by adding

$$1,800 + \underline{12} = \underline{1,812}$$

Think: 302 is close to 300. Find  $6 \times 300$  and adjust the answer.

Think: Since 300 is 2 less than 302, the estimate is less than the actual product. Multiply 6 by 2 to determine the amount that needs to be added to the estimated product.

3. Use compensation to find  $4 \times 252$ .

$$4 \times 250 = \underline{1,000} \quad 4 \times 2 = \underline{8}$$

$$1,000 + \underline{8} = \underline{1,008}$$

4. Use compensation to find  $2 \times 895$ .

$$2 \times 900 = \underline{1,800} \quad 2 \times 5 = \underline{10}$$

$$1,800 - \underline{10} = \underline{1,790}$$

5. Use compensation to find  $8 \times 998$ . **7,984**

**On the Back!**

6. Use compensation to find  $8 \times 115$ .

**920; Check students' work.**



Name \_\_\_\_\_

**Vocabulary**

**1. Partial products** are the products found by multiplying each place value of one factor by another factor.

The model shows  $4 \times 125$ .

To find the partial products, multiply the number of groups (4) by

the ones:  $4 \times 5 =$  \_\_\_\_\_

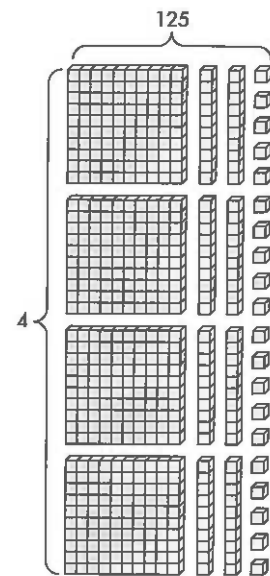
the tens:  $4 \times 20 =$  \_\_\_\_\_

the hundreds:  $4 \times 100 =$  \_\_\_\_\_

Add the partial products to find the product.

$$\underline{\quad\quad} + \underline{\quad\quad} + \underline{\quad\quad} = \underline{\quad\quad}$$

So,  $4 \times 125 =$  \_\_\_\_\_



Use the array to show  $5 \times 137$ .

**2.** Complete the array on the right.

Use the array to find the partial products.

**3.**  $5 \times 7 =$  \_\_\_\_\_

$5 \times 30 =$  \_\_\_\_\_

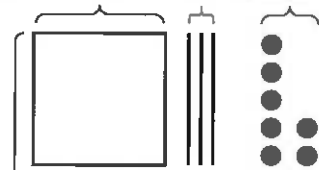
$5 \times 100 =$  \_\_\_\_\_

Complete the calculation.

$$\begin{array}{r} 4. \quad 137 \\ \times \quad 5 \\ \hline \end{array}$$



$$137 = 100 + 30 + 7$$



5

**On the Back!**

**5.** Draw an array to show  $123 \times 5$ . Use the partial products to complete the calculation.

Name \_\_\_\_\_

Reteach to Build Understanding

**3-5**

**A2 Vocabulary**

1. **Partial products** are the products found by multiplying each place value of one factor by another factor.

The model shows  $4 \times 125$ .

To find the partial products, multiply the number of groups (4) by

the ones:  $4 \times 5 = \mathbf{20}$

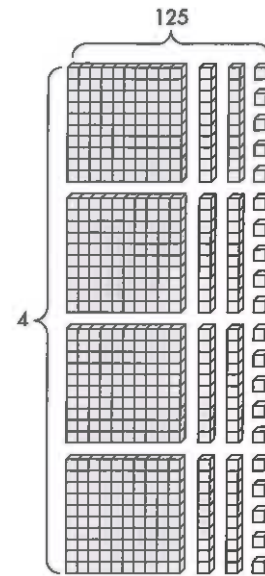
the tens:  $4 \times 20 = \mathbf{80}$

the hundreds:  $4 \times 100 = \mathbf{400}$

Add the partial products to find the product.

$\mathbf{20} + \mathbf{80} + \mathbf{400} = \mathbf{500}$

So,  $4 \times 125 = \mathbf{500}$



Use the array to show  $5 \times 137$ .

2. Complete the array on the right.

Use the array to find the partial products.

3.  $5 \times 7 = \mathbf{35}$

$5 \times 30 = \mathbf{150}$

$5 \times 100 = \mathbf{500}$

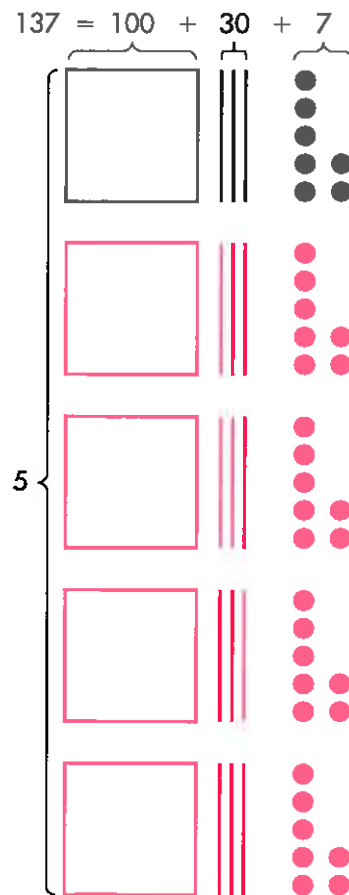
Complete the calculation.

$$\begin{array}{r}
 4. \quad 137 \\
 \times \quad 5 \\
 \hline
 \quad 35 \\
 \quad 150 \\
 + 500 \\
 \hline
 685
 \end{array}$$

**On the Back!**

5. Draw an array to show  $123 \times 5$ . Use the partial products to complete the calculation.

**615; Check students' work.**



Name \_\_\_\_\_

Reteach to Build  
Understanding

**3-6**

**A2 Vocabulary**

1. An **algorithm** is a set of steps to solve a math problem. The algorithm below uses partial products to find the final product.

Find  $7 \times 483$ . Multiply each place value to find the partial products.

$$7 \times 3 = \underline{\hspace{2cm}}$$

$$7 \times 80 = \underline{\hspace{2cm}}$$

$$7 \times 400 = \underline{\hspace{2cm}}$$

Add the partial products to find the final product.

$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

2. You can use rounding to **estimate** or find a number that is close.

Round 483 to estimate the product.

$$7 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

Use partial products to find the product.

3. 
$$\begin{array}{r} 625 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} + \phantom{625} \\ \hline \phantom{625} \\ \phantom{625} \\ \hline \end{array}$$

How many ones? Think  $3 \times 5$ .

How many tens? Think  $3 \times 20$ .

How many hundreds? Think  $3 \times 600$ .

Add the partial products to find the product.

4. Use rounding to estimate  $3 \times 625$ .

5. Is your answer to Exercise 3 reasonable?

**On the Back!**

6. Use an algorithm to find  $913 \times 7$ . Check if your answer is reasonable.

**A2** Vocabulary

1. An **algorithm** is a set of steps to solve a math problem. The algorithm below uses partial products to find the final product.

Find  $7 \times 483$ . Multiply each place value to find the partial products.

$$7 \times 3 = \underline{21}$$

$$7 \times 80 = \underline{560}$$

$$7 \times 400 = \underline{2,800}$$

Add the partial products to find the final product.

$$\underline{21} + \underline{560} + \underline{2,800} = \underline{3,381}$$

2. You can use rounding to **estimate** or find a number that is close.

Round 483 to estimate the product.

$$7 \times \underline{500} = \underline{3,500}$$

Use partial products to find the product.

$$\begin{array}{r} 3. \quad 625 \\ \times \quad 3 \\ \hline 15 \\ 60 \\ + 1,800 \\ \hline 1,875 \end{array}$$

How many ones? Think  $3 \times 5$ .

How many tens? Think  $3 \times 20$ .

How many hundreds? Think  $3 \times 600$ .

Add the partial products to find the product.

4. Use rounding to estimate  $3 \times 625$ .

$$\underline{\text{Sample answer: } 3 \times 600 = 1,800}$$

5. Is your answer to Exercise 3 reasonable?

**Sample answer: 1,800 is close to 1,875, so my answer is reasonable.**

**On the Back!**

6. Use an algorithm to find  $913 \times 7$ . Check if your answer is reasonable.

**6,391; Check students' work.**

**A2 Vocabulary**

**1. Regrouping** is a way to name a whole number in a different way. The algorithm below uses regrouping to show the product.

Step 1	Step 2	Step 3
$\begin{array}{r} 6\overset{2}{\underset{.}{3}}7 \\ \times \quad 4 \\ \hline \end{array}$	$\begin{array}{r} 6\overset{2}{\underset{.}{3}}7 \\ \times \quad 4 \\ \hline \phantom{6}8 \end{array}$	$\begin{array}{r} 6\overset{1\ 2}{\underset{.}{3}}7 \\ \times \quad 4 \\ \hline \phantom{6},\ 48 \end{array}$
<p>Multiply the ones. Regroup 20 ones as _____ tens.</p>	<p>Multiply the tens. Add 2 tens. Regroup 10 tens as _____ hundred.</p>	<p>Multiply the hundreds. Add _____ hundred.</p>

Remember, not every place value will need to be regrouped.

**2. Find  $5 \times 59$ .**  
Use an algorithm to calculate the product.

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

1. Multiply the ones. Regroup if necessary.
2. Multiply the tens. Add any extra tens.

**3. Multiply  $9 \times 573$ .**

$$\begin{array}{r} \phantom{9} \\ \times \\ \hline \end{array}$$

1. Multiply the ones. Regroup if necessary.
2. Multiply the \_\_\_\_\_. Add any extra tens. Regroup if necessary.
3. Multiply the \_\_\_\_\_. Add any extra hundreds.

**4.**

$$\begin{array}{r} 881 \\ \times \quad 9 \\ \hline \end{array}$$

**On the Back!**

**5. Find the product.**

$$\begin{array}{r} \phantom{22}7 \\ \times \quad 7 \\ \hline \end{array}$$

**AZ Vocabulary**

**1. Regrouping** is a way to name a whole number in a different way. The algorithm below uses regrouping to show the product.

Step 1	Step 2	Step 3
$\begin{array}{r} 6\overset{2}{3}7 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} \overset{1}{6}\overset{2}{3}7 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} \overset{1}{6}\overset{2}{3}7 \\ \times 4 \\ \hline \end{array}$
<p>Multiply the ones. Regroup 20 ones as <b>2</b> tens.</p>	<p>Multiply the tens. Add 2 tens. Regroup 10 tens as <b>1</b> hundred.</p>	<p>Multiply the hundreds. Add <b>1</b> hundred.</p>

Remember, not every place value will need to be regrouped.

**2. Find  $5 \times 59$ .**  
Use an algorithm to calculate the product.

$$\begin{array}{r} \overset{4}{5}9 \\ \times 5 \\ \hline \end{array}$$

1. Multiply the ones. Regroup if necessary.
2. Multiply the tens. Add any extra tens.

**3. Multiply  $9 \times 573$ .**

$$\begin{array}{r} \overset{6}{5}73 \\ \times 9 \\ \hline \end{array}$$

1. Multiply the ones. Regroup if necessary.
2. Multiply the **tens**. Add any extra tens. Regroup if necessary.
3. Multiply the **hundreds**. Add any extra hundreds.

**4.**

$$\begin{array}{r} \overset{7}{8}81 \\ \times 9 \\ \hline \end{array}$$

**On the Back!**

**5. Find the product.**

$$\begin{array}{r} 227 \\ \times 7 \\ \hline \end{array}$$

**Check students' work.**

**1,589**

**Vocabulary**

1. An **algorithm** is a set of steps used to solve a math problem. Complete the calculation using the algorithm for multiplying a 4-digit number by a 1-digit number.

$$\begin{array}{r} 2,742 \\ \times \quad 8 \\ \hline \end{array}$$

**Step 1** Multiply the ones. Regroup if necessary.

**Step 2** Multiply the tens. Add any extra tens. Regroup if necessary.

**Step 3** Multiply the hundreds. Add any extra hundreds. Regroup if necessary.

**Step 4** Multiply the thousands. Add any extra thousands.

Use the standard algorithm to find each product.

2. 
$$\begin{array}{r} 7,734 \\ \times \quad 4 \\ \hline \end{array}$$

3. 
$$\begin{array}{r} 9,172 \\ \times \quad 6 \\ \hline \end{array}$$

4. 
$$\begin{array}{r} 8,714 \\ \times \quad 5 \\ \hline \end{array}$$

5. 
$$\begin{array}{r} 3,247 \\ \times \quad 3 \\ \hline \end{array}$$

6.  $7 \times 8,391 =$  \_\_\_\_\_

7.  $8 \times 3,417 =$  \_\_\_\_\_

8.  $9 \times 4,263 =$  \_\_\_\_\_

9.  $6 \times 9,191 =$  \_\_\_\_\_

**On the Back!**

10. Find the product.

$$\begin{array}{r} 3,645 \\ \times \quad 4 \\ \hline \end{array}$$

**AZ** Vocabulary

1. An **algorithm** is a set of steps used to solve a math problem. Complete the calculation using the algorithm for multiplying a 4-digit number by a 1-digit number.

$$\begin{array}{r} 5 \\ 2,742 \\ \times \quad 8 \\ \hline 21,936 \end{array}$$

**Step 1** Multiply the ones. Regroup if necessary.

**Step 2** Multiply the tens. Add any extra tens. Regroup if necessary.

**Step 3** Multiply the hundreds. Add any extra hundreds. Regroup if necessary.

**Step 4** Multiply the thousands. Add any extra thousands.

Use the standard algorithm to find each product.

2. 
$$\begin{array}{r} 211 \\ 7,734 \\ \times \quad 4 \\ \hline 30,936 \end{array}$$

3. 
$$\begin{array}{r} 141 \\ 9,172 \\ \times \quad 6 \\ \hline 55,032 \end{array}$$

4. 
$$\begin{array}{r} 8,714 \\ \times \quad 5 \\ \hline 43,570 \end{array}$$

5. 
$$\begin{array}{r} 3,247 \\ \times \quad 3 \\ \hline 9,741 \end{array}$$

6.  $7 \times 8,391 = 58,737$

7.  $8 \times 3,417 = 27,336$

8.  $9 \times 4,263 = 38,367$

9.  $6 \times 9,191 = 55,146$

**On the Back!**

10. Find the product.

$$\begin{array}{r} 3,645 \\ \times \quad 4 \\ \hline \end{array}$$

**14,580** Check students' work.



Name \_\_\_\_\_

Reteach to Build  
Understanding

**3-9**

**Vocabulary**

1. A **product** is the answer to a multiplication problem. Follow the steps below to find the product of  $5 \times 6,839$ .

$$\begin{array}{r} 6,839 \\ \times \quad 5 \\ \hline \end{array}$$

**Step 1** Multiply the ones. Regroup if necessary.

**Step 2** Multiply the tens. Add any extra tens. Regroup if necessary.

**Step 3** Multiply the hundreds. Add any extra hundreds. Regroup if necessary.

**Step 4** Multiply the thousands. Add any extra thousands.

2. Use estimation to check if your answer above is reasonable. Estimate the product of  $5 \times 6,839$ .

Round 6,839 to the nearest thousand.

Estimate the product:

$$5 \times \underline{\quad\quad\quad} = \underline{\quad\quad\quad}$$

3. Is your answer to Exercise 1 reasonable? Explain.

4. Find the product.

$$\begin{array}{r} 4,235 \\ \times \quad 9 \\ \hline \end{array}$$

5. Use estimation to check if your answer above is reasonable.

Estimate the product:

$$9 \times \underline{\quad\quad\quad} = \underline{\quad\quad\quad}$$

6. Is your answer to Exercise 4 reasonable?

**On the Back!**

7. Find the product of  $4 \times 1,875$ . Estimate to check if your answer is reasonable.

**AZ** Vocabulary

1. A **product** is the answer to a multiplication problem. Follow the steps below to find the product of  $5 \times 6,839$ .

$\begin{array}{r} 6,839 \\ \times \quad 5 \\ \hline 34,195 \end{array}$	<b>Step 1</b>	Multiply the ones. Regroup if necessary.
	<b>Step 2</b>	Multiply the tens. Add any extra tens. Regroup if necessary.
	<b>Step 3</b>	Multiply the hundreds. Add any extra hundreds. Regroup if necessary.
	<b>Step 4</b>	Multiply the thousands. Add any extra thousands.

2. Use estimation to check if your answer above is reasonable. Estimate the product of  $5 \times 6,839$ .

Round 6,839 to the nearest thousand. **7,000**

Estimate the product:

$$5 \times \mathbf{7,000} = \mathbf{35,000}$$

3. Is your answer to Exercise 1 reasonable? Explain.

**Yes; Sample answer: 34,195 is close to 35,000.**

4. Find the product.

$$\begin{array}{r} 4,235 \\ \times \quad 9 \\ \hline 38,115 \end{array}$$

5. Use estimation to check if your answer above is reasonable.

Estimate the product:

$$9 \times \mathbf{4,000} = \mathbf{36,000}$$

6. Is your answer to Exercise 4 reasonable? **Yes**

**On the Back!**

7. Find the product of  $4 \times 1,875$ . Estimate to check if your answer is reasonable.

**7,500; Check students' work.**

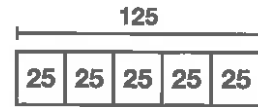
Name \_\_\_\_\_

**12 Vocabulary**

1. One way to model with math is to use a representation, like a picture or diagram, to help solve a problem. You can then model the math by writing an equation. An **equation** is a number sentence that uses the equal sign (=) to show that two expressions have the same value.

Look at the bar diagram.

There are \_\_\_\_\_ equal groups. Each group is labeled with \_\_\_\_\_. There are \_\_\_\_\_ in all.

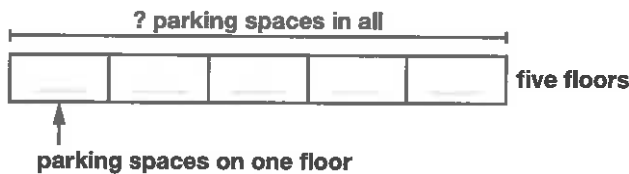


Write an equation for the bar diagram.

$5 \times \underline{\quad} = \underline{\quad}$

Complete each bar diagram. Then write and solve an equation to answer the question.

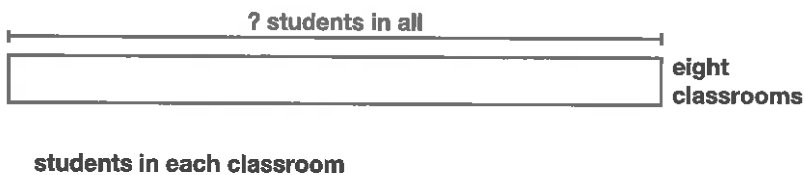
2. There are 245 parking spaces on each floor of a parking garage. The parking garage has 5 floors. How many parking spaces does the garage have?



$$\begin{array}{r} 245 \\ \times 5 \\ \hline \end{array}$$

There are \_\_\_\_\_ parking spaces.

3. Each classroom has 28 students. There are 8 classrooms. How many students are in the classrooms?



$$\begin{array}{r} 28 \\ \times 8 \\ \hline \end{array}$$

There are \_\_\_\_\_ students.

**On the Back!**

4. Nyla earns \$208 a day. She works 5 days a week. How much does Nyla earn each week? Draw a picture and write an equation to solve.

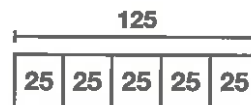
Name \_\_\_\_\_

**AZ** Vocabulary

- One way to model with math is to use a representation, like a picture or diagram, to help solve a problem. You can then model the math by writing an equation. An **equation** is a number sentence that uses the equal sign (=) to show that two expressions have the same value.

Look at the bar diagram.

There are **5** equal groups. Each group is labeled with **25**. There are **125** in all.

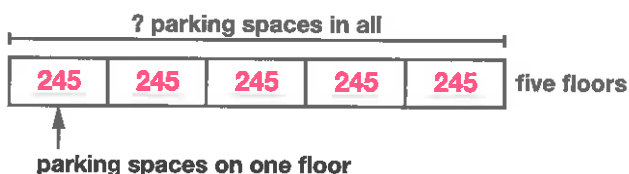


Write an equation for the bar diagram.

$$5 \times 25 = 125$$

Complete each bar diagram. Then write and solve an equation to answer the question.

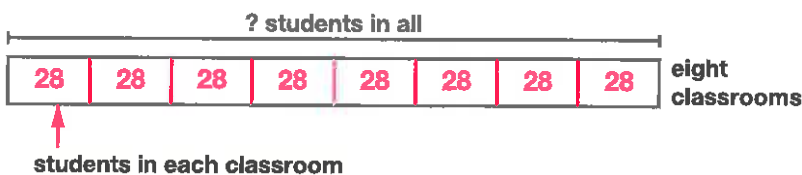
- There are 245 parking spaces on each floor of a parking garage. The parking garage has 5 floors. How many parking spaces does the garage have?



$$\begin{array}{r} 245 \\ \times 5 \\ \hline 1,225 \end{array}$$

There are **1,225** parking spaces.

- Each classroom has 28 students. There are 8 classrooms. How many students are in the classrooms?



$$\begin{array}{r} 28 \\ \times 8 \\ \hline 224 \end{array}$$

There are **224** students.

**On the Back!**

- Nyla earns \$208 a day. She works 5 days a week. How much does Nyla earn each week? Draw a picture and write an equation to solve.  
**\$1,040; Check students' work.**