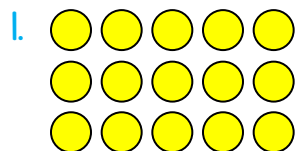


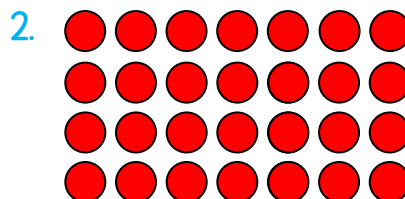
Name \_\_\_\_\_ # \_\_\_\_\_ Date \_\_\_\_\_

### enVision Math 3.1 - The Distributive Property Practice

Separate the rows in the large array into two smaller arrays. Write the new facts.



$$3 \times 5 = (\underline{\quad} \times \underline{\quad}) + (\underline{\quad} \times \underline{\quad})$$



$$4 \times 7 = (\underline{\quad} \times \underline{\quad}) + (\underline{\quad} \times \underline{\quad})$$

Use the Distributive Property to find each missing factor. Use counters and arrays to help.

3.  $4 \times 8 = (3 \times \underline{\quad}) + (1 \times 8)$

4.  $6 \times 5 = (\underline{\quad} \times 5) + (2 \times 5)$

5.  $(\underline{\quad} \times 9) = (1 \times 9) + (2 \times \underline{\quad})$

6.  $(10 \times \underline{\quad}) = (5 \times 7) + (\underline{\quad} \times 7)$

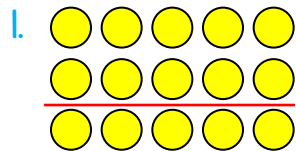
7.  $(5 \times \underline{\quad}) = (4 \times 6) + (\underline{\quad} \times 6)$

8.  $(8 \times \underline{\quad}) = (\underline{\quad} \times 2) + (6 \times 2)$

## enVision Math 3.1 - The Distributive Property Practice

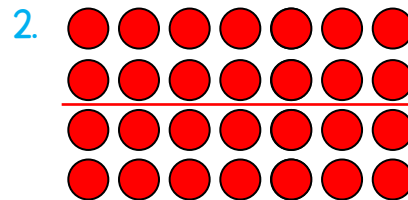
### Answer Key

Separate the rows in the large array into two smaller arrays. Write the new facts.



$$3 \times 5 = (\underline{\quad} \times \underline{\quad}) + (\underline{\quad} \times \underline{\quad})$$

Sample answer:  $(2 \times 5) + (1 \times 5)$



$$4 \times 7 = (\underline{\quad} \times \underline{\quad}) + (\underline{\quad} \times \underline{\quad})$$

Sample answer:  $(2 \times 7) + (2 \times 7)$

Use the Distributive Property to find each missing factor. Use counters and arrays to help.

3.  $4 \times 8 = (3 \times \underline{8}) + (1 \times 8)$

4.  $6 \times 5 = (\underline{4} \times 5) + (2 \times 5)$

5.  $(\underline{3} \times 9) = (1 \times 9) + (2 \times \underline{9})$

6.  $(10 \times \underline{7}) = (5 \times 7) + (\underline{5} \times 7)$

7.  $(5 \times \underline{6}) = (4 \times 6) + (\underline{1} \times 6)$

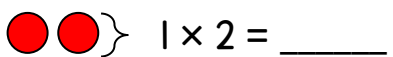
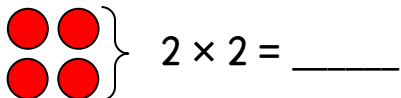
8.  $(8 \times \underline{2}) = (\underline{2} \times 2) + (6 \times 2)$

Name \_\_\_\_\_ # \_\_\_\_\_ Date \_\_\_\_\_

enVision Math 3.2 – Apply Properties: 3 and 4 as Factors Practice

Multiply. You may use counters or pictures to help.

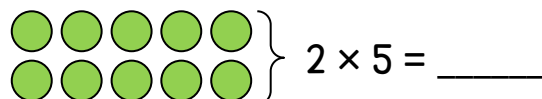
1. Find  $3 \times 2$



4 + 2 = \_\_\_\_\_

So,  $3 \times 2 =$  \_\_\_\_\_.

2. Find  $4 \times 5$



10 + 10 = \_\_\_\_\_

So,  $4 \times 5 =$  \_\_\_\_\_.

4.  $3 \times 4 =$  \_\_\_\_\_

5.  $4 \times 8 =$  \_\_\_\_\_

6.  $5 \times 3 =$  \_\_\_\_\_

7.  $4 \times 0 =$  \_\_\_\_\_

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

9.  $3 \times 8 =$  \_\_\_\_\_

10. 
$$\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array}$$

11. 
$$\begin{array}{r} 10 \\ \times 4 \\ \hline \end{array}$$

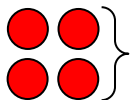
12. 
$$\begin{array}{r} 3 \\ \times 1 \\ \hline \end{array}$$

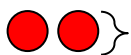
## enVision Math 3.2 – Apply Properties: 3 and 4 as Factors Practice

### Answer Key

Multiply. You may use counters or pictures to help.

1. Find  $3 \times 2$

  $2 \times 2 = \underline{4}$

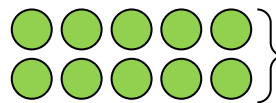
  $1 \times 2 = \underline{2}$

$4 + 2 = \underline{6}$

$\text{So, } 3 \times 2 = \underline{6}.$

2. Find  $4 \times 5$

  $2 \times 5 = \underline{10}$

  $2 \times 5 = \underline{10}$

$10 + 10 = \underline{20}$

$\text{So, } 4 \times 5 = \underline{20}.$

4.  $3 \times 4 = \underline{12}$

5.  $4 \times 8 = \underline{32}$

6.  $5 \times 3 = \underline{15}$

7.  $4 \times 0 = \underline{0}$

8.  $4 \times 9 = \underline{36}$

9.  $3 \times 8 = \underline{24}$

10. 
$$\begin{array}{r} 3 \\ \times 9 \\ \hline 27 \end{array}$$

11. 
$$\begin{array}{r} 10 \\ \times 4 \\ \hline 40 \end{array}$$

12. 
$$\begin{array}{r} 3 \\ \times 1 \\ \hline 3 \end{array}$$

Name \_\_\_\_\_ # \_\_\_\_\_ Date \_\_\_\_\_

enVision Math 3.3 – Apply Properties: 6 and 7 as Factors Practice

Find the product. You may draw pictures to help.

1. 
$$\begin{array}{r} 4 \\ \times 6 \\ \hline \end{array}$$

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

3. 
$$\begin{array}{r} 6 \\ \times 1 \\ \hline \end{array}$$

4. 
$$\begin{array}{r} 5 \\ \times 7 \\ \hline \end{array}$$

5. 
$$\begin{array}{r} 6 \\ \times 8 \\ \hline \end{array}$$

6. 
$$\begin{array}{r} 7 \\ \times 4 \\ \hline \end{array}$$

7. 
$$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 10 \\ \times 6 \\ \hline \end{array}$$

9. 
$$\begin{array}{r} 1 \\ \times 7 \\ \hline \end{array}$$

10. 
$$\begin{array}{r} 3 \\ \times 6 \\ \hline \end{array}$$

11. 
$$\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$$

12. 
$$\begin{array}{r} 6 \\ \times 7 \\ \hline \end{array}$$

### enVision Math 3.3 – Apply Properties: 6 and 7 as Factors Practice

#### Answer Key

Find the product. You may draw pictures to help.

1. 
$$\begin{array}{r} 4 \\ \times 6 \\ \hline 24 \end{array}$$

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

3. 
$$\begin{array}{r} 6 \\ \times 1 \\ \hline 6 \end{array}$$

4. 
$$\begin{array}{r} 5 \\ \times 7 \\ \hline 35 \end{array}$$

5. 
$$\begin{array}{r} 6 \\ \times 8 \\ \hline 48 \end{array}$$

6. 
$$\begin{array}{r} 7 \\ \times 4 \\ \hline 28 \end{array}$$

7. 
$$\begin{array}{r} 7 \\ \times 9 \\ \hline 63 \end{array}$$

8. 
$$\begin{array}{r} 10 \\ \times 6 \\ \hline 60 \end{array}$$

9. 
$$\begin{array}{r} 1 \\ \times 7 \\ \hline 7 \end{array}$$

10. 
$$\begin{array}{r} 3 \\ \times 6 \\ \hline 18 \end{array}$$

11. 
$$\begin{array}{r} 9 \\ \times 6 \\ \hline 54 \end{array}$$

12. 
$$\begin{array}{r} 6 \\ \times 7 \\ \hline 42 \end{array}$$

Name \_\_\_\_\_ # \_\_\_\_\_ Date \_\_\_\_\_

enVision Math 3.4 - Apply Properties: 8 as a Factor Practice

Find the product. You may draw pictures to help.

1.  $8 \times 4 =$  \_\_\_\_\_

2.  $8 \times 2 =$  \_\_\_\_\_

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

4.  $8 \times 6 =$  \_\_\_\_\_

5.  $8 \times 0 =$  \_\_\_\_\_

6.  $9 \times 8 =$  \_\_\_\_\_

7. 
$$\begin{array}{r} 2 \\ \times 8 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$$

9. 
$$\begin{array}{r} 8 \\ \times 1 \\ \hline \end{array}$$

10. 
$$\begin{array}{r} 5 \\ \times 8 \\ \hline \end{array}$$

11. 
$$\begin{array}{r} 6 \\ \times 8 \\ \hline \end{array}$$

12. 
$$\begin{array}{r} 4 \\ \times 8 \\ \hline \end{array}$$

13. 
$$\begin{array}{r} 1 \\ \times 8 \\ \hline \end{array}$$

14. 
$$\begin{array}{r} 10 \\ \times 8 \\ \hline \end{array}$$

15. 
$$\begin{array}{r} 8 \\ \times 8 \\ \hline \end{array}$$

enVision Math 3.4 – Apply Properties: 8 as a Factor Practice

Answer Key

Find the product. You may draw pictures to help.

1.  $8 \times 4 = \underline{32}$

2.  $8 \times 2 = \underline{16}$

3.  $7 \times 8 = \underline{56}$

4.  $8 \times 6 = \underline{48}$

5.  $8 \times 0 = \underline{0}$

6.  $9 \times 8 = \underline{72}$

7. 
$$\begin{array}{r} 2 \\ \times 8 \\ \hline 16 \end{array}$$

8. 
$$\begin{array}{r} 8 \\ \times 3 \\ \hline 24 \end{array}$$

9. 
$$\begin{array}{r} 8 \\ \times 1 \\ \hline 8 \end{array}$$

10. 
$$\begin{array}{r} 5 \\ \times 8 \\ \hline 40 \end{array}$$

11. 
$$\begin{array}{r} 6 \\ \times 8 \\ \hline 48 \end{array}$$

12. 
$$\begin{array}{r} 4 \\ \times 8 \\ \hline 32 \end{array}$$

13. 
$$\begin{array}{r} 1 \\ \times 8 \\ \hline 8 \end{array}$$

14. 
$$\begin{array}{r} 10 \\ \times 8 \\ \hline 80 \end{array}$$

15. 
$$\begin{array}{r} 8 \\ \times 8 \\ \hline 64 \end{array}$$

Name \_\_\_\_\_ # \_\_\_\_\_ Date \_\_\_\_\_

enVision Math 3.5 - Practice Multiplication Facts

Use known facts and strategies to find the product.

1.  $2 \times 6 =$  \_\_\_\_\_

2.  $4 \times 9 =$  \_\_\_\_\_

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

4. \_\_\_\_\_  $= 7 \times 3$

5. \_\_\_\_\_  $= 0 \times 4$

6. \_\_\_\_\_  $= 1 \times 6$

7. 
$$\begin{array}{r} 8 \\ \times 8 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 4 \\ \times 2 \\ \hline \end{array}$$

9. 
$$\begin{array}{r} 9 \\ \times 1 \\ \hline \end{array}$$

10. 
$$\begin{array}{r} 10 \\ \times 3 \\ \hline \end{array}$$

11. 
$$\begin{array}{r} 6 \\ \times 7 \\ \hline \end{array}$$

12. 
$$\begin{array}{r} 9 \\ \times 9 \\ \hline \end{array}$$

13. What is  $9 \times 2$ ? \_\_\_\_\_

14. What is  $1 \times 0$ ? \_\_\_\_\_

enVision Math 3.5 – Practice Multiplication Facts

Answer Key

Use known facts and strategies to find the product.

1.  $2 \times 6 = \underline{12}$

2.  $4 \times 9 = \underline{36}$

3.  $5 \times 5 = \underline{25}$

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

5.  $\underline{0} = 0 \times 4$

6.  $\underline{6} = 1 \times 6$

7. 
$$\begin{array}{r} 8 \\ \times 8 \\ \hline 64 \end{array}$$

8. 
$$\begin{array}{r} 4 \\ \times 2 \\ \hline 8 \end{array}$$

9. 
$$\begin{array}{r} 9 \\ \times 1 \\ \hline 9 \end{array}$$

10. 
$$\begin{array}{r} 10 \\ \times 3 \\ \hline 30 \end{array}$$

11. 
$$\begin{array}{r} 6 \\ \times 7 \\ \hline 42 \end{array}$$

12. 
$$\begin{array}{r} 9 \\ \times 9 \\ \hline 81 \end{array}$$

13. What is  $9 \times 2$ ?  $\underline{18}$

14. What is  $1 \times 0$ ?  $\underline{0}$

Name \_\_\_\_\_ # \_\_\_\_\_ Date \_\_\_\_\_

enVision Math 3.6 - The Associative Property:  
Multiply with 3 Factors Practice

Use the Associative Property of Multiplication to find the missing number. You may use objects or draw a picture to help.

1.  $5 \times (3 \times 2) = (5 \times 3) \times \underline{\hspace{2cm}}$

2.  $6 \times (4 \times 5) = (6 \times 4) \times \underline{\hspace{2cm}}$

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

4.  $4 \times (3 \times 6) = (4 \times \underline{\hspace{2cm}}) \times 6$

5.  $2 \times (5 \times 6) = (2 \times 5) \times \underline{\hspace{2cm}}$

6.  $3 \times (3 \times 4) = (3 \times \underline{\hspace{2cm}}) \times 4$

Use the Associative Property of Multiplication to find the product.  
You may use objects or draw a picture to help.

7.  $4 \times 4 \times 2 = \underline{\hspace{2cm}}$

8.  $5 \times 3 \times 3 = \underline{\hspace{2cm}}$

9.  $4 \times 2 \times 3 = \underline{\hspace{2cm}}$

10.  $8 \times 6 \times 2 = \underline{\hspace{2cm}}$

11.  $9 \times 3 \times 2 = \underline{\hspace{2cm}}$

12.  $2 \times 6 \times 6 = \underline{\hspace{2cm}}$

enVision Math 3.6 - The Associative Property:

Multiply with 3 Factors Practice

Answer Key

Use the Associative Property of Multiplication to find the missing number. You may use objects or draw a picture to help.

1.  $5 \times (3 \times 2) = (5 \times 3) \times \underline{2}$

2.  $6 \times (4 \times 5) = (6 \times 4) \times \underline{5}$

3.  $7 \times (2 \times 2) = (7 \times 2) \times \underline{2}$

4.  $4 \times (3 \times 6) = (4 \times \underline{3}) \times 6$

5.  $2 \times (5 \times 6) = (2 \times 5) \times \underline{6}$

6.  $3 \times (3 \times 4) = (3 \times \underline{3}) \times 4$

Use the Associative Property of Multiplication to find the product.  
You may use objects or draw a picture to help.

7.  $4 \times 4 \times 2 = \underline{32}$

8.  $5 \times 3 \times 3 = \underline{45}$

9.  $4 \times 2 \times 3 = \underline{24}$

10.  $8 \times 6 \times 2 = \underline{96}$

11.  $9 \times 3 \times 2 = \underline{54}$

12.  $2 \times 6 \times 6 = \underline{72}$

Name \_\_\_\_\_ # \_\_\_\_\_ Date \_\_\_\_\_

enVision Math 3.7 - Math Practices and Problem Solving:  
Repeated Reasoning

Mark wrote the equations at the right.

1. Which factors did Mark use repeatedly to find the products? Make a generalization.

$$7 \times 6 = (3 \times 6) + (4 \times 6) = 42$$

$$5 \times 7 = (5 \times 3) + (5 \times 4) = 35$$

$$7 \times 8 = (3 \times 8) + (4 \times 8) = 56$$

2. Complete this equation to test whether your generalization is true for other facts. Explain.

$$7 \times 2 = (\underline{\quad} \times \underline{\quad}) + (\underline{\quad} \times \underline{\quad}) = \underline{\quad}$$

3. What is another way you can use known facts to solve  $7 \times 2$ ? What generalization can you make from this way?

enVision Math 3.7 – Math Practices and Problem Solving:  
Repeated Reasoning

Answer Key

Mark wrote the equations at the right.

1. Which factors did Mark use repeatedly to find the products? Make a generalization.

$$7 \times 6 = (3 \times 6) + (4 \times 6) = 42$$

$$5 \times 7 = (5 \times 3) + (5 \times 4) = 35$$

$$7 \times 8 = (3 \times 8) + (4 \times 8) = 56$$

He used 3 and 4 repeatedly; I can break 7s facts into 3s and 4s facts.

2. Complete this equation to test whether your generalization is true for other facts. Explain.

$$7 \times 2 = (\underline{3} \times \underline{2}) + (\underline{4} \times \underline{2}) = \underline{14}$$

My generalization is true. The 7 fact could be broken apart into a 3 fact and a 4 fact. The product is correct.

3. What is another way you can use known facts to solve  $7 \times 2$ ? What generalization can you make from this way?

Sample answer:  $7 \times 2 = (2 \times 2) + (5 \times 2) = 14$ ; I can break up 7 different ways.