



A Story of Units

**Pleasanton**  
UNIFIED SCHOOL DISTRICT

**Mathematics Curriculum**



# GRADE 3 • MODULE 3

**Multiplication and Division with Units of 0, 1, 6–9,  
and Multiples of 10**

# **Homework**

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Video tutorials: <http://bit.ly/eurekapusd>

Info for parents: <http://bit.ly/pusdmath>



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**GRADE 3 • MODULE 3**

## Multiplication and Division with Units of 0, 1, 6–9, and Multiples of 10

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Name \_\_\_\_\_

Date \_\_\_\_\_

1. Complete the charts below.

a. A tricycle has 3 wheels.

Number of Tricycles	3		5		7
Total Number of Wheels		12		18	

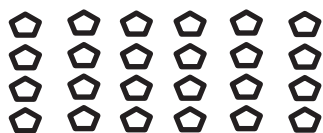
b. A tiger has 4 legs.

Number of Tigers			7	8	9
Total Number of Legs	20	24			

c. A package has 5 erasers.

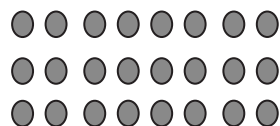
Number of Packages	6				10
Total Number of Erasers		35	40	45	

2. Write two multiplication facts for each array.



\_\_\_\_\_ = \_\_\_\_\_ × \_\_\_\_\_

\_\_\_\_\_ = \_\_\_\_\_ × \_\_\_\_\_



\_\_\_\_\_ = \_\_\_\_\_ × \_\_\_\_\_

\_\_\_\_\_ = \_\_\_\_\_ × \_\_\_\_\_

3. Match the expressions.

$3 \times 6$

7 threes

3 sevens

$2 \times 10$

2 eights

$9 \times 5$

$5 \times 9$

$8 \times 2$

10 twos

$6 \times 3$

4. Complete the equations.

a. 2 sixes = \_\_\_\_\_ twos  
= 12

d.  $4 \times$  \_\_\_\_\_ = \_\_\_\_\_  $\times 4$   
= 28

b. \_\_\_\_\_  $\times 6 = 6$  threes  
= \_\_\_\_\_

e. 5 twos + 2 twos = \_\_\_\_\_  $\times$  \_\_\_\_\_  
= \_\_\_\_\_

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

f. \_\_\_\_\_ fives + 1 five =  $6 \times 5$   
= \_\_\_\_\_

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Each  has a value of 9.



Unit form: \_\_\_\_\_

Facts:  $5 \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \times 5$

Total = \_\_\_\_\_



Unit form: 6 nines = \_\_\_\_\_ nines + \_\_\_\_\_ nine

= 45 + \_\_\_\_\_

= \_\_\_\_\_

Facts: \_\_\_\_\_  $\times$  \_\_\_\_\_ = \_\_\_\_\_

\_\_\_\_\_  $\times$  \_\_\_\_\_ = \_\_\_\_\_

2. There are 6 blades on each windmill. How many total blades are on 7 windmills? Use a fives fact to solve.

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3. Juanita organizes her magazines into 3 equal piles. She has a total of 18 magazines. How many magazines are in each pile?

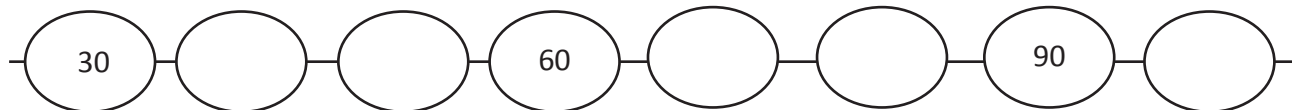
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4. Markuo spends \$27 on some plants. Each plant costs \$9. How many plants does he buy?

Name \_\_\_\_\_

Date \_\_\_\_\_

1. a. Complete the pattern.



- b. Find the value of the unknown.

$10 \times 2 = d$        $d = \underline{20}$

$10 \times 6 = w$        $w = \underline{\quad}$

$3 \times 10 = e$        $e = \underline{\quad}$

$10 \times 7 = n$        $n = \underline{\quad}$

$f = 4 \times 10$        $f = \underline{\quad}$

$g = 8 \times 10$        $g = \underline{\quad}$

$p = 5 \times 10$        $p = \underline{\quad}$

2. Each equation contains a letter representing the unknown. Find the value of the unknown.

$8 \div 2 = n$	$n = \underline{\quad}$
$3 \times a = 12$	$a = \underline{\quad}$
$p \times 8 = 40$	$p = \underline{\quad}$
$18 \div 6 = c$	$c = \underline{\quad}$
$d \times 4 = 24$	$d = \underline{\quad}$
$h \div 7 = 5$	$h = \underline{\quad}$
$6 \times 3 = f$	$f = \underline{\quad}$
$32 \div y = 4$	$y = \underline{\quad}$





Name \_\_\_\_\_

Date \_\_\_\_\_

1. Use number bonds to help you skip-count by six by either making a ten or adding to the ones.

a.  $6 + 6 = \underline{10} + \underline{2} = \underline{\quad}$

b.  $12 + 6 = \underline{10} + \underline{8} = \underline{\quad}$

c.  $18 + 6 = \underline{\quad} + \underline{\quad} = \underline{\quad}$

d.  $24 + 6 = \underline{\quad} + \underline{\quad} = \underline{\quad}$

e.  $30 + 6 = \underline{\quad}$

f.  $36 + 6 = \underline{\quad} + \underline{\quad} = \underline{\quad}$

g.  $42 + 6 = \underline{\quad} + \underline{\quad} = \underline{\quad}$

h.  $48 + 6 = \underline{\quad} + \underline{\quad} = \underline{\quad}$

i.  $54 + 6 = \underline{\quad} + \underline{\quad} = \underline{\quad}$

2. Count by six to fill in the blanks below.

6, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

Complete the multiplication equation that represents the final number in your count-by.

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

Complete the division equation that represents your count-by.

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

3. Count by six to fill in the blanks below.

6, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

Complete the multiplication equation that represents the final number in your count-by.

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

Complete the division equation that represents your count-by.

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

4. Count by six to solve  $48 \div 6$ . Show your work below.

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Use number bonds to help you skip-count by seven by making ten or adding to the ones.

a.  $7 + 7 = \frac{10}{3} + \frac{4}{4} = \underline{\quad}$

b.  $14 + 7 = \underline{\quad} + \underline{\quad} = \underline{\quad}$   
 $\frac{6}{6} \frac{1}{1}$

c.  $21 + 7 = \underline{\quad} + \underline{\quad} = \underline{\quad}$   
 $\frac{20}{20} \frac{1}{1}$

d.  $28 + 7 = \underline{\quad} + \underline{\quad} = \underline{\quad}$   
 $\frac{2}{2} \frac{5}{5}$

e.  $35 + 7 = \underline{\quad} + \underline{\quad} = \underline{\quad}$   
 $\frac{5}{5} \frac{2}{2}$

f.  $42 + 7 = \underline{\quad} + \underline{\quad} = \underline{\quad}$

g.  $49 + 7 = \underline{\quad} + \underline{\quad} = \underline{\quad}$

h.  $56 + 7 = \underline{\quad} + \underline{\quad} = \underline{\quad}$

2. Skip-count by seven to fill in the blanks. Then, fill in the multiplication equation and use it to write the related division fact directly to the right.

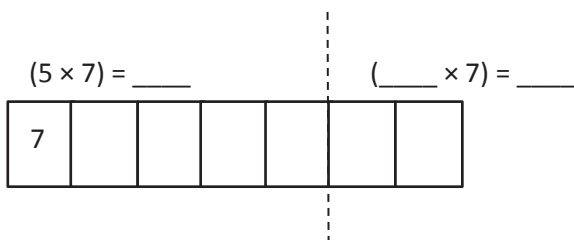
_____		$7 \times 10 =$ _____		_____ $\div 7 =$ _____
_____		$7 \times 9 =$ _____		_____ $\div 7 =$ _____
_____		$7 \times 8 =$ _____		_____ $\div 7 =$ _____
<u>49</u>		$7 \times 7 =$ _____		_____ $\div 7 =$ _____
_____		$7 \times 6 =$ _____		_____ $\div 7 =$ _____
_____		$7 \times 5 =$ _____		_____ $\div 7 =$ _____
<u>28</u>		$7 \times 4 =$ _____		_____ $\div 7 =$ _____
_____		$7 \times 3 =$ _____		_____ $\div 7 =$ _____
_____		$7 \times 2 =$ _____		_____ $\div 7 =$ _____
<u>7</u>		$7 \times 1 =$ _____		_____ $\div 7 =$ _____

Name \_\_\_\_\_

Date \_\_\_\_\_

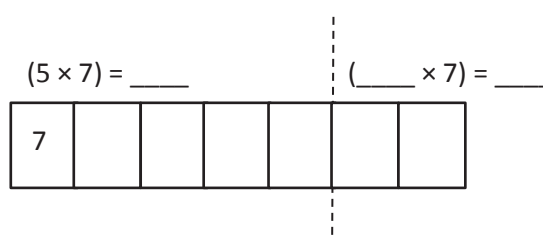
1. Label the tape diagrams. Then, fill in the blanks below to make the statements true.

a.  $6 \times 7 = \underline{\quad}$



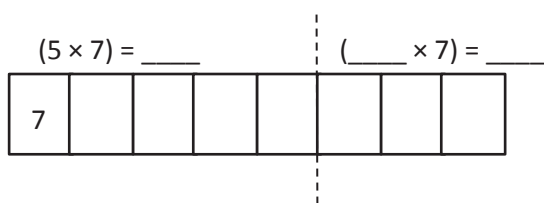
$$\begin{aligned} (6 \times 7) &= (5 + 1) \times 7 \\ &= (5 \times 7) + (1 \times 7) \\ &= \underline{35} + \underline{\quad} \\ &= \underline{\quad} \end{aligned}$$

b.  $7 \times 7 = \underline{\quad}$



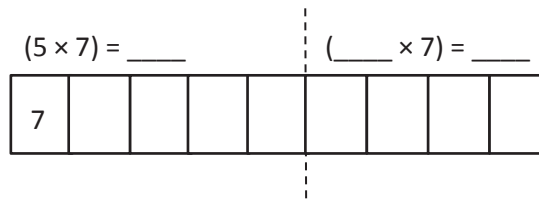
$$\begin{aligned} (7 \times 7) &= (5 + 2) \times 7 \\ &= (5 \times 7) + (2 \times 7) \\ &= \underline{35} + \underline{\quad} \\ &= \underline{\quad} \end{aligned}$$

c.  $8 \times 7 = \underline{\quad}$



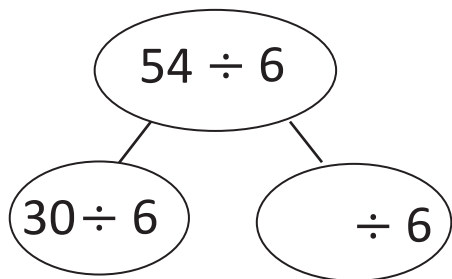
$$\begin{aligned} 8 \times 7 &= (5 + \underline{\quad}) \times 7 \\ &= (5 \times 7) + (\underline{\quad} \times 7) \\ &= \underline{35} + \underline{\quad} \\ &= \underline{\quad} \end{aligned}$$

d.  $9 \times 7 = \underline{\quad}$



$$\begin{aligned} 9 \times 7 &= (5 + \underline{\quad}) \times 7 \\ &= (5 \times 7) + (\underline{\quad} \times 7) \\ &= \underline{35} + \underline{\quad} \\ &= \underline{\quad} \end{aligned}$$

2. Break apart 54 to solve  $54 \div 6$ .

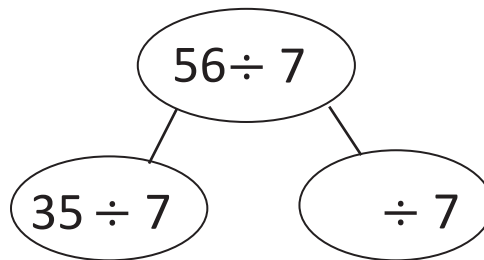


$$54 \div 6 = (30 \div 6) + (\text{_____} \div 6)$$

$$= 5 + \text{_____}$$

$$= \text{_____}$$

3. Break apart 56 to solve  $56 \div 7$ .



$$56 \div 7 = (\text{_____} \div \text{_____}) + (\text{_____} \div \text{_____})$$

$$= 5 + \text{_____}$$

$$= \text{_____}$$

4. Forty-two third grade students sit in 6 equal rows in the auditorium. How many students sit in each row?  
Show your thinking.

5. Ronaldo solves  $7 \times 6$  by thinking of it as  $(5 \times 7) + 7$ . Is he correct? Explain Ronaldo's strategy.

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Match the words on the arrow to the correct equation on the target.

7 times a number equals 42



$$n \times 7 = 21$$



63 divided by a number equals 9



$$7 \times n = 42$$



36 divided by a number equals 6



$$63 \div n = 9$$



A number times 7 equals 21



$$36 \div n = 6$$



2. Ari sells 6 boxes of pens at the school store.
- Each box of pens sells for \$7. Draw a tape diagram and label the total amount of money he makes as  $m$ . Write an equation and solve for  $m$ .
  
  
  
  
  
  
  
  
  
  
  - Each box contains 6 pens. Draw a tape diagram and label the total number of pens as  $p$ . Write an equation and solve for  $p$ .
- 
3. Mr. Lucas divides 28 students into 7 equal groups for a project. Draw a tape diagram and label the number of students in each group as  $n$ . Write an equation and solve for  $n$ .



Name \_\_\_\_\_

Date \_\_\_\_\_

1. Solve.

a.  $9 - (6 + 3) = \underline{\quad}$

b.  $(9 - 6) + 3 = \underline{\quad}$

c.  $\underline{\quad} = 14 - (4 + 2)$

d.  $\underline{\quad} = (14 - 4) + 2$

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

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

g.  $(18 \div 3) + 6 = \underline{\quad}$

h.  $18 \div (3 + 6) = \underline{\quad}$

2. Use parentheses to make the equations true.

a.  $14 - 8 + 2 = 4$

b.  $14 - 8 + 2 = 8$

c.  $2 + 4 \times 7 = 30$

d.  $2 + 4 \times 7 = 42$

e.  $12 = 18 \div 3 \times 2$

f.  $3 = 18 \div 3 \times 2$

g.  $5 = 50 \div 5 \times 2$

h.  $20 = 50 \div 5 \times 2$

3. Determine if the equation is true or false.

a. $(15 - 3) \div 2 = 6$	<i>Example: True</i>
b. $(10 - 7) \times 6 = 18$	
c. $(35 - 7) \div 4 = 8$	
d. $28 = 4 \times (20 - 13)$	
e. $35 = (22 - 8) \div 5$	

4. Jerome finds that  $(3 \times 6) \div 2$  and  $18 \div 2$  are equal. Explain why this is true.

5. Place parentheses in the equation below so that you solve by finding the difference between 28 and 3. Write the answer.

$$4 \times 7 - 3 =$$

6. Johnny says that the answer to  $2 \times 6 \div 3$  is 4 no matter where he puts the parentheses. Do you agree? Place parentheses around different numbers to help you explain his thinking.

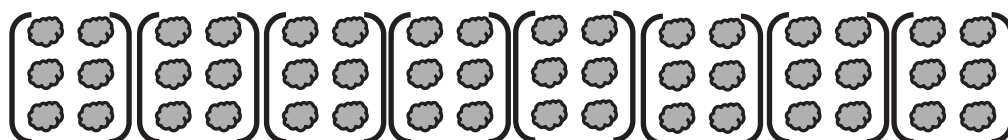
Name \_\_\_\_\_

Date \_\_\_\_\_

1. Use the array to complete the equation.



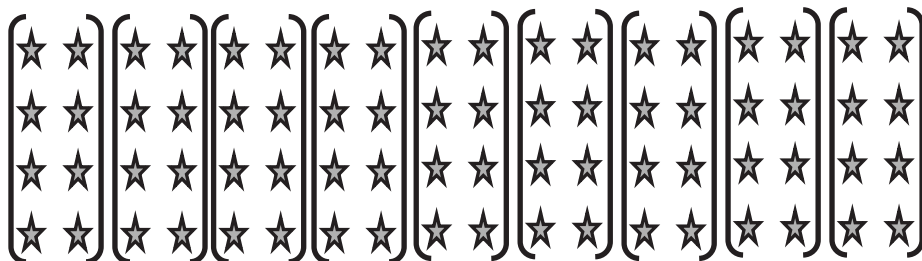
a.  $3 \times 16 = \underline{\hspace{2cm}}$



b.  $(3 \times \underline{\hspace{1cm}}) \times 8$   
 $= \underline{\hspace{1cm}} \times \underline{\hspace{1cm}}$   
 $= \underline{\hspace{2cm}}$



c.  $4 \times 18 = \underline{\hspace{2cm}}$



d.  $(4 \times \underline{\hspace{1cm}}) \times 9$   
 $= \underline{\hspace{1cm}} \times \underline{\hspace{1cm}}$   
 $= \underline{\hspace{2cm}}$

2. Place parentheses in the equations to simplify and solve.

$$\left. \begin{array}{l} 12 \times 4 = (6 \times 2) \times 4 \\ = 6 \times (2 \times 4) \\ = 6 \times \underline{8} \end{array} \right\} = \underline{48}$$

$$\left. \begin{array}{l} \text{a. } 3 \times 14 = 3 \times (2 \times 7) \\ = 3 \times 2 \times 7 \\ = \underline{\quad} \times 7 \end{array} \right\} = \underline{\quad}$$

$$\left. \begin{array}{l} \text{b. } 3 \times 12 = 3 \times (3 \times 4) \\ = 3 \times 3 \times 4 \\ = \underline{\quad} \times 4 \end{array} \right\} = \underline{\quad}$$

3. Solve. Then, match the related facts.

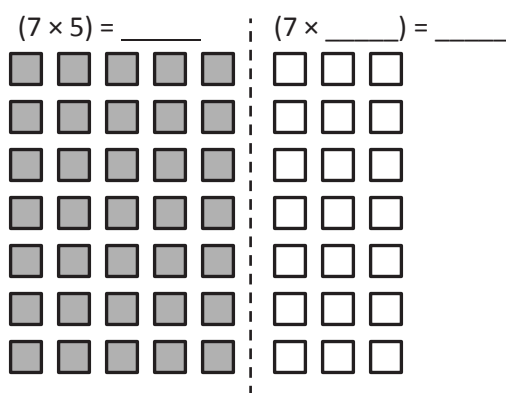
a. $20 \times 2 = \underline{40} =$	$6 \times (5 \times 2)$
b. $30 \times 2 = \underline{\quad} =$	$8 \times (5 \times 2)$
c. $35 \times 2 = \underline{\quad} =$	$4 \times (5 \times 2)$
d. $40 \times 2 = \underline{\quad} =$	$7 \times (5 \times 2)$

Name \_\_\_\_\_

Date \_\_\_\_\_

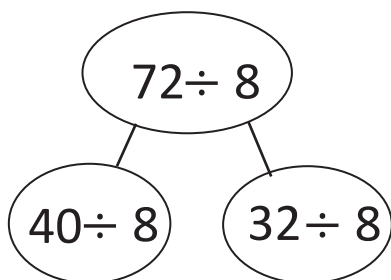
1. Label the array. Then, fill in the blanks to make the statements true.

$$8 \times 7 = 7 \times 8 = \underline{\hspace{2cm}}$$



$$\begin{aligned}
 8 \times 7 &= 7 \times (5 + \underline{\hspace{1cm}}) \\
 &= (7 \times 5) + (7 \times \underline{\hspace{1cm}}) \\
 &= \underline{35} + \underline{\hspace{1cm}} \\
 &= \underline{\hspace{2cm}}
 \end{aligned}$$

2. Break apart and distribute to solve  $72 \div 8$ .



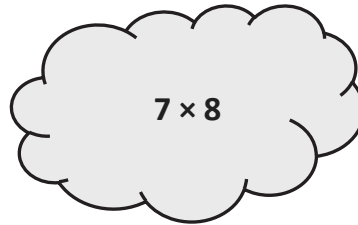
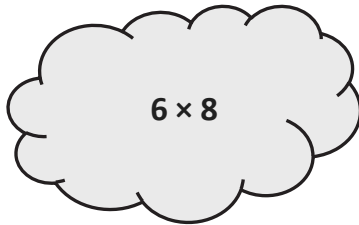
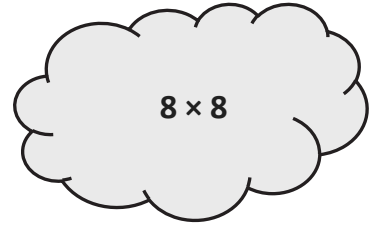
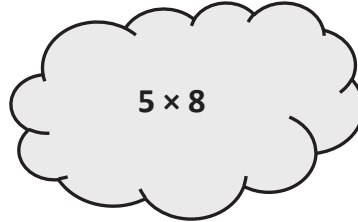
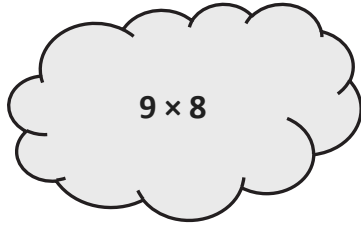
$$72 \div 8 = (40 \div 8) + (\underline{\hspace{2cm}} \div 8)$$

$$= 5 + \underline{\hspace{2cm}}$$

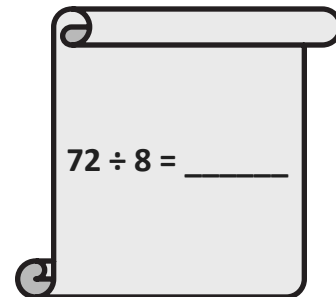
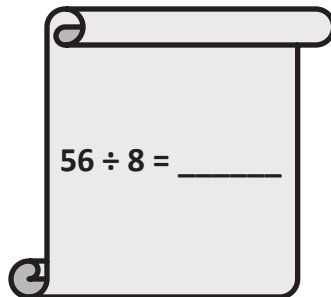
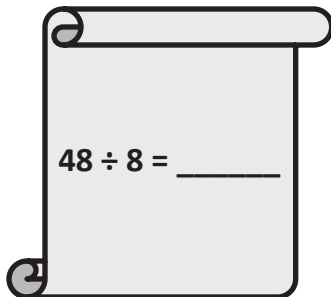
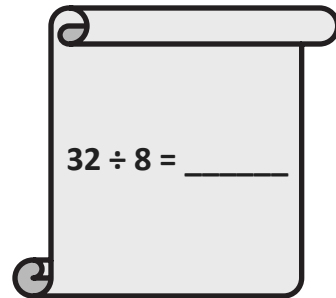
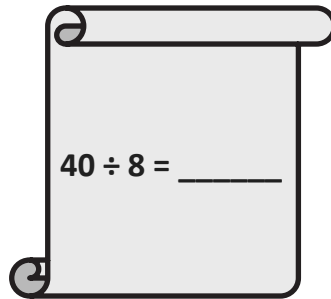
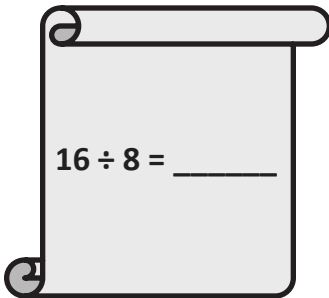
$$= \underline{\hspace{2cm}}$$

3. Count by 8. Then, match each multiplication problem with its value.

8 \_\_\_\_\_



4. Divide.



Name \_\_\_\_\_

Date \_\_\_\_\_

1. Jenny bakes 10 cookies. She puts 7 chocolate chips on each cookie. Draw a tape diagram, and label the total amount of chocolate chips as  $c$ . Write an equation, and solve for  $c$ .

- 
2. Mr. Lopez arranges 48 dry erase markers into 8 equal groups for his math stations. Draw a tape diagram, and label the number of dry erase markers in each group as  $v$ . Write an equation, and solve for  $v$ .

- 
3. There are 35 computers in the lab. Five students each turn off an equal number of computers. How many computers does each student turn off? Label the unknown as  $m$ , and then solve.

4. There are 9 bins of books. Each bin has 6 comic books. How many comic books are there altogether?

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5. There are 8 trail mix bags in one box. Clarissa buys 5 boxes. She gives an equal number of bags of trail mix to 4 friends. How many bags of trail mix does each friend receive?

---

6. Leo earns \$8 each week for doing chores. After 7 weeks, he buys a gift and has \$38 left. How much money does he spend on the gift?



Name \_\_\_\_\_

Date \_\_\_\_\_

1. Find the value of each row. Then, add the rows to find the total.

a. Each  has a value of 6.

$9 \times 6 = \underline{\quad}$



$5 \times 6 = 30$



$4 \times 6 = \underline{\quad}$

$$\begin{aligned} 9 \times 6 &= (5 + 4) \times 6 \\ &= (5 \times 6) + (4 \times 6) \\ &= 30 + \underline{\quad} \\ &= \underline{\quad} \end{aligned}$$

b. Each  has a value of 7.

$9 \times 7 = \underline{\quad}$



$5 \times 7 = \underline{\quad}$



$\underline{\quad} \times 7 = \underline{\quad}$

$$\begin{aligned} 9 \times 7 &= (5 + \underline{\quad}) \times 7 \\ &= (5 \times 7) + (\underline{\quad} \times 7) \\ &= 35 + \underline{\quad} \\ &= \underline{\quad} \end{aligned}$$

c. Each  has a value of 8.

$9 \times 8 = \underline{\quad}$



$5 \times 8 = \underline{\quad}$



$\underline{\quad} \times 8 = \underline{\quad}$

$$\begin{aligned} 9 \times 8 &= (5 + \underline{\quad}) \times 8 \\ &= (5 \times 8) + (\underline{\quad} \times \underline{\quad}) \\ &= 40 + \underline{\quad} \\ &= \underline{\quad} \end{aligned}$$

d. Each  has a value of 9.

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



$5 \times 9 = \underline{\quad}$

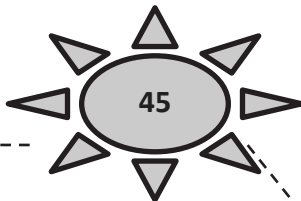


$\underline{\quad} \times 9 = \underline{\quad}$

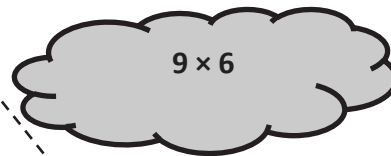
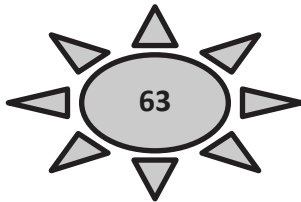
$$\begin{aligned} 9 \times 9 &= (5 + \underline{\quad}) \times 9 \\ &= (5 \times 9) + (\underline{\quad} \times \underline{\quad}) \\ &= 45 + \underline{\quad} \\ &= \underline{\quad} \end{aligned}$$

2. Match.

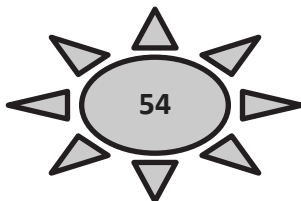
a. **9 fives** = 10 fives – 1 five  
=  $50 - 5$



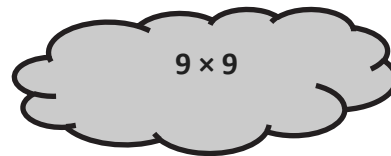
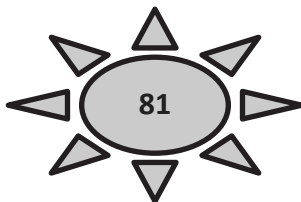
b. **9 sixes** = 10 sixes – 1 six  
=  $\underline{\quad} - 6$



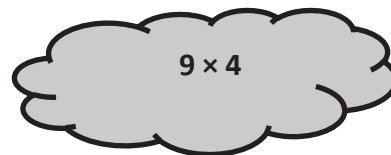
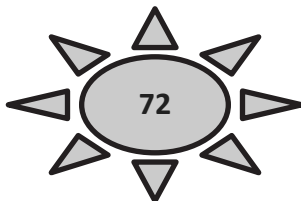
c. **9 sevens** = 10 sevens – 1 seven  
=  $\underline{\quad} - 7$



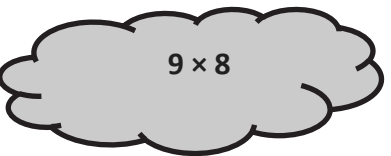
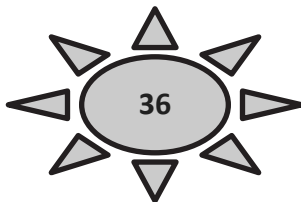
d. **9 eights** = 10 eights – 1 eight  
=  $\underline{\quad} - 8$



e. **9 nines** = 10 nines – 1 nine  
=  $\underline{\quad} - \underline{\quad}$



f. **9 fours** = 10 fours – 1 four  
=  $\underline{\quad} - \underline{\quad}$



Name \_\_\_\_\_

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1. a. Skip-count by nines down from 90.

90, \_\_\_\_\_, 72, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, 36, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

- b. Look at the
- tens*
- place in the count-by. What is the pattern?

- c. Look at the
- ones*
- place in the count-by. What is the pattern?

2. Each equation contains a letter representing the unknown. Find the value of each unknown.

$$a \times 9 = 18$$

$$a = \underline{\quad}$$

$$m \div 9 = 3$$

$$m = \underline{\quad}$$

$$e \times 9 = 45$$

$$e = \underline{\quad}$$

$$f \div 9 = 4$$

$$f = \underline{\quad}$$

$$9 \times d = 81$$

$$d = \underline{\quad}$$

$$w \div 9 = 6$$

$$w = \underline{\quad}$$

$$9 \times s = 90$$

$$s = \underline{\quad}$$

$$k \div 9 = 8$$

$$k = \underline{\quad}$$

3. Solve.

a. What is 10 more than 0? \_\_\_\_\_ b. What is 10 more than 9? \_\_\_\_\_ c. What is 10 more than 18? \_\_\_\_\_

What is 1 less? \_\_\_\_\_

What is 1 less? \_\_\_\_\_

What is 1 less? \_\_\_\_\_

$1 \times 9 = \underline{\quad}$

$2 \times 9 = \underline{\quad}$

$3 \times 9 = \underline{\quad}$

d. What is 10 more than 27? \_\_\_\_\_ e. What is 10 more than 36? \_\_\_\_\_ f. What is 10 more than 45? \_\_\_\_\_

What is 1 less? \_\_\_\_\_

What is 1 less? \_\_\_\_\_

What is 1 less? \_\_\_\_\_

$4 \times 9 = \underline{\quad}$

$5 \times 9 = \underline{\quad}$

$6 \times 9 = \underline{\quad}$

g. What is 10 more than 54? \_\_\_\_\_ h. What is 10 more than 63? \_\_\_\_\_ i. What is 10 more than 72? \_\_\_\_\_

What is 1 less? \_\_\_\_\_

What is 1 less? \_\_\_\_\_

What is 1 less? \_\_\_\_\_

$7 \times 9 = \underline{\quad}$

$8 \times 9 = \underline{\quad}$

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

j. What is 10 more than 81? \_\_\_\_\_

What is 1 less? \_\_\_\_\_

$10 \times 9 = \underline{\quad}$

4. Explain the pattern in Problem 3, and use the pattern to solve the next 3 facts.

$11 \times 9 = \underline{\quad}$

$12 \times 9 = \underline{\quad}$

$13 \times 9 = \underline{\quad}$

Name \_\_\_\_\_

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1. a. Multiply. Then, add the digits in each product.

$10 \times 9 = 90$	$\underline{9} + \underline{0} = \underline{9}$
$9 \times 9 = 81$	$\underline{8} + \underline{1} = \underline{9}$
$8 \times 9 =$	$\underline{\quad} + \underline{\quad} = \underline{\quad}$
$7 \times 9 =$	$\underline{\quad} + \underline{\quad} = \underline{\quad}$
$6 \times 9 =$	$\underline{\quad} + \underline{\quad} = \underline{\quad}$
$5 \times 9 =$	$\underline{\quad} + \underline{\quad} = \underline{\quad}$
$4 \times 9 =$	$\underline{\quad} + \underline{\quad} = \underline{\quad}$
$3 \times 9 =$	$\underline{\quad} + \underline{\quad} = \underline{\quad}$
$2 \times 9 =$	$\underline{\quad} + \underline{\quad} = \underline{\quad}$
$1 \times 9 =$	$\underline{\quad} + \underline{\quad} = \underline{\quad}$

- b. What pattern did you notice in Problem 1(a)? How can this strategy help you check your work with nines facts?

2. Thomas calculates  $9 \times 7$  by thinking about it as  $70 - 7 = 63$ . Explain Thomas' strategy.

3. Alexia figures out the answer to  $6 \times 9$  by lowering the thumb on her right hand, shown below. What is the answer? Explain Alexia's strategy.



4. Travis writes  $72 = 9 \times 8$ . Is he correct? Explain at least 2 strategies Travis can use to help him check his work.



4. Mr. Doyle shares 1 roll of bulletin board paper equally with 8 teachers. The total length of the roll is 72 meters. How much bulletin board paper does each teacher get?
5. There are 9 pens in a pack. Ms. Ochoa buys 9 packs. After giving her students some pens, she has 27 pens left. How many pens did she give away?
6. Allen buys 9 packs of trading cards. There are 10 cards in each pack. He can trade 30 cards for a comic book. How many comic books can he get if he trades all of his cards?



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1. Complete.

a.  $4 \times 1 = \underline{\quad}$

b.  $4 \times 0 = \underline{\quad}$

c.  $\underline{\quad} \times 1 = 5$

d.  $\underline{\quad} \div 5 = 0$

e.  $6 \times \underline{\quad} = 6$

f.  $\underline{\quad} \div 6 = 0$

g.  $0 \div 7 = \underline{\quad}$

h.  $7 \times \underline{\quad} = 0$

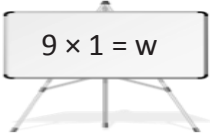
i.  $8 \div \underline{\quad} = 8$

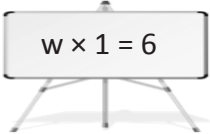
j.  $\underline{\quad} \times 8 = 8$

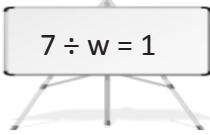
k.  $9 \times \underline{\quad} = 9$

l.  $9 \div \underline{\quad} = 1$

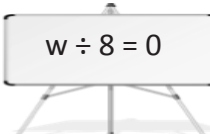
2. Match each equation with its solution.

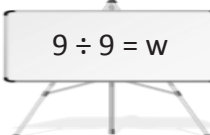

 $9 \times 1 = w$


 $w \times 1 = 6$


 $7 \div w = 1$


 $1 \times w = 8$


 $w \div 8 = 0$


 $9 \div 9 = w$


 $w = 6$


 $w = 7$


 $w = 8$


 $w = 9$


 $w = 1$


 $w = 0$

3. Let  $c = 8$ . Determine whether the equations are true or false. The first one has been done for you.

a. $c \times 0 = 8$	<i>False</i>
b. $0 \times c = 0$	
c. $c \times 1 = 8$	
d. $1 \times c = 8$	
e. $0 \div c = 8$	
f. $8 \div c = 1$	
g. $0 \div c = 0$	
h. $c \div 0 = 8$	

4. Rajan says that any number multiplied by 1 equals that number.
- Write a multiplication equation using  $n$  to represent Rajan's statement.
  
  
  
  
  
  
  
  
  
  
  - Using your equation from Part (a), let  $n = 5$ , and draw a picture to show that the new equation is true.

Name \_\_\_\_\_

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1. a. Write the products into the chart as fast as you can.

×	1	2	3	4	5	6	7	8
1								
2								
3								
4								
5								
6								
7								
8								

- b. Color the rows and columns with even factors yellow.
- c. What do you notice about the factors and products that are left unshaded?
- d. Complete the chart below by filling in each blank and writing an example for each rule.

Rule	Example
odd times odd equals _____	
even times even equals _____	
even times odd equals _____	

- e. Explain how  $7 \times 6 = (5 \times 6) + (2 \times 6)$  is shown in the table.
- f. Use what you know to find the product of  $4 \times 16$  or 8 fours + 8 fours.
2. Today in class, we found that  $n \times n$  is the sum of the first  $n$  odd numbers. Use this pattern to find the value of  $n$  for each equation below. The first is done for you.
- a.  $1 + 3 + 5 = n \times n$
- $9 = 3 \times 3$**
- b.  $1 + 3 + 5 + 7 = n \times n$
- c.  $1 + 3 + 5 + 7 + 9 + 11 = n \times n$
- d.  $1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 = n \times n$
- e.  $1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 + 17 + 19 = n \times n$

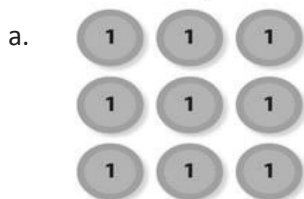


4. Leslie weighs her marbles in a jar, and the scale reads 474 grams. The empty jar weighs 439 grams. Each marble weighs 5 grams. How many marbles are in the jar?
5. Sharon uses 72 centimeters of ribbon to wrap gifts. She uses 24 centimeters of her total ribbon to wrap a big gift. She uses the remaining ribbon for 6 small gifts. How much ribbon will she use for each small gift if she uses the same amount on each?
6. Six friends equally share the cost of a gift. They pay \$90 and receive \$42 in change. How much does each friend pay?

Name \_\_\_\_\_

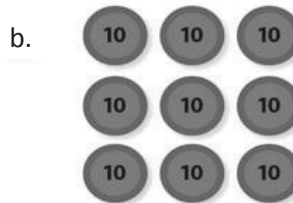
Date \_\_\_\_\_

1. Use the disks to complete the blanks in the equations.



$$3 \times 3 \text{ ones} = \underline{\hspace{2cm}} \text{ ones}$$

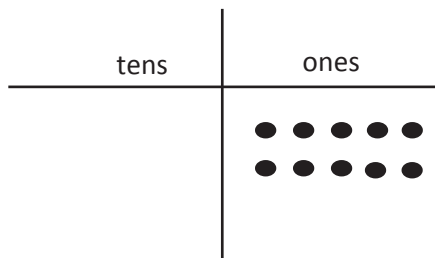
$$3 \times 3 = \underline{\hspace{2cm}}$$



$$3 \times 3 \text{ tens} = \underline{\hspace{2cm}} \text{ tens}$$

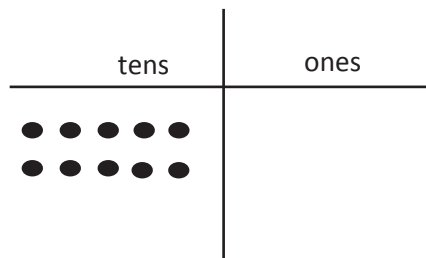
$$30 \times 3 = \underline{\hspace{2cm}}$$

2. Use the chart to complete the blanks in the equations.



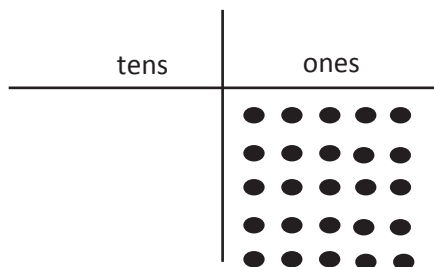
a.  $2 \times 5 \text{ ones} = \underline{\hspace{2cm}} \text{ ones}$

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



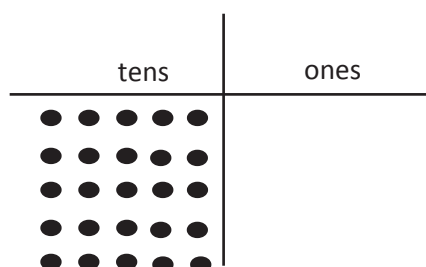
b.  $2 \times 5 \text{ tens} = \underline{\hspace{2cm}} \text{ tens}$

$$2 \times 50 = \underline{\hspace{2cm}}$$



c.  $5 \times 5 \text{ ones} = \underline{\hspace{2cm}} \text{ ones}$

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



d.  $5 \times 5 \text{ tens} = \underline{\hspace{2cm}} \text{ tens}$

$$5 \times 50 = \underline{\hspace{2cm}}$$

3. Match.

$6 \times 2$

120

$6 \text{ tens} \times 2$

21

$7 \times 3$

12

$7 \text{ tens} \times 3$

270

$70 \times 5$

210

$3 \times 90$

350

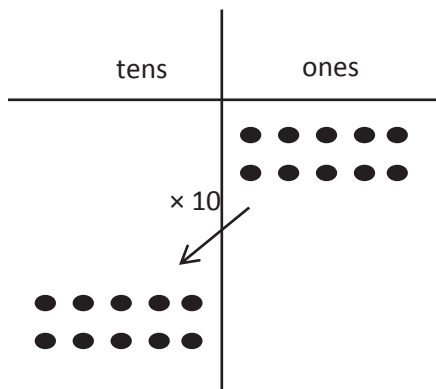
4. Each classroom has 30 desks. What is the total number of desks in 8 classrooms? Model with a tape diagram.



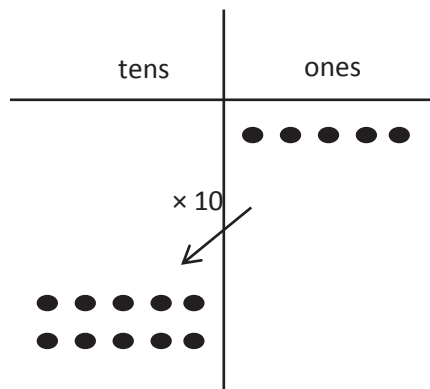
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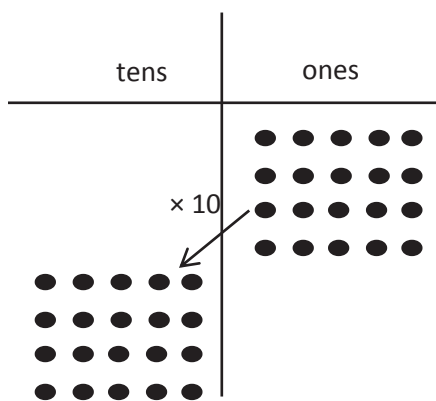
1. Use the chart to complete the equations. Then, solve.



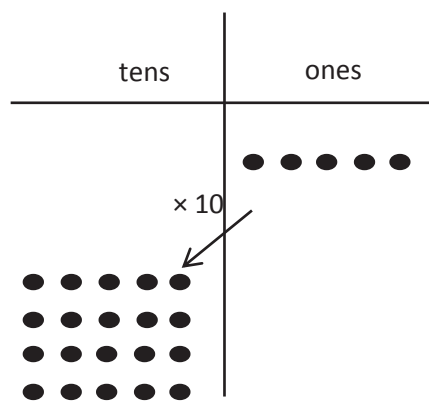
a.  $(2 \times 5) \times 10$   
 $= (10 \text{ ones}) \times 10$   
 $= \underline{\hspace{2cm}}$



b.  $2 \times (5 \times 10)$   
 $= 2 \times (5 \text{ tens})$   
 $= \underline{\hspace{2cm}}$



c.  $(4 \times 5) \times 10$   
 $= (\underline{\hspace{1cm}} \text{ ones}) \times 10$   
 $= \underline{\hspace{2cm}}$



d.  $4 \times (5 \times 10)$   
 $= 4 \times (\underline{\hspace{1cm}} \text{ tens})$   
 $= \underline{\hspace{2cm}}$

2. Solve. Place parentheses in (c) and (d) as needed to find the related fact.

a.  $3 \times 20 = 3 \times (2 \times 10)$

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

$$= \underline{6} \times 10$$

$$= \underline{\quad}$$

b.  $3 \times 30 = 3 \times (3 \times 10)$

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

$$= \underline{\quad} \times 10$$

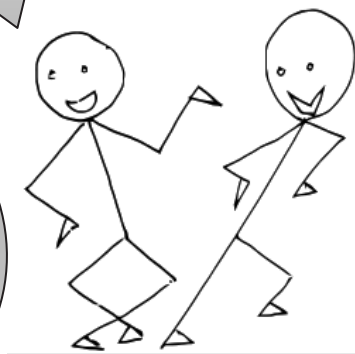
$$= \underline{\quad}$$

c.  $3 \times 40 = 3 \times (4 \times 10)$

$$= 3 \times 4 \times 10$$

$$= \underline{\quad} \times 10$$

$$= \underline{\quad}$$



d.  $3 \times 50 = 3 \times 5 \times 10$

$$= 3 \times 5 \times 10$$

$$= \underline{\quad} \times 10$$

$$= \underline{\quad}$$

3. Danny solves  $5 \times 20$  by thinking about  $10 \times 10$ . Explain his strategy.



4. Mr. Ramirez receives 4 sets of books. Each set has 16 fiction books and 14 non-fiction books. He puts 97 books in his library and donates the rest. How many books does he donate?
5. Celia sells calendars for a fundraiser. Each calendar costs \$9. She sells 16 calendars to her family members and 14 calendars to the people in her neighborhood. Her goal is to earn \$300. Does Celia reach her goal? Explain your answer.
6. The video store sells science and history movies for \$5 each. How much money does the video store make if it sells 33 science movies and 57 history movies?









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Video tutorials: <http://bit.ly/eurekapusd>

Info for parents: <http://bit.ly/pusdmath>