ESTAR INTERVENTION

Name:

Module: *Multiplication & Division Relationships (MDR)*

Student Activity Sheets

The Meadows Center for Preventing Educational Risk—Mathematics Institute
The University of Texas at Austin

The Meadows Center

FOR PREVENTING EDUCATIONAL RISK

THE UNIVERSITY OF TEXAS AT AUSTIN

COLLEGE OF EDUCATION

Mathematics Institute for Learning Disabilities and Difficulties

www.meadowscenter.org

1–100 Chart: 2s

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

STOP

Use the 100s chart to show your work.

Makayla was given a sequence of numbers: 16, 20, 24, 28, 32. She knows that each number cannot be separated into groups of 3 or 5 equally. How could she prove this using the hundreds chart?

100 Chart

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Use your hundreds chart to answer the following questions.

1.) Counting by 3s, what are the first 6 numbers? _____ , _____ , _____ , _____ , _____ , _____

2.) How many groups of 3 is 30? _____

3.) Write an addition expression to show 9 groups of 3.

_____

4.) What is the pattern when skip counting by 3s? _____

Use your 100 charts to continue the pattern.

1.) 90 , 100 , _____ , _____

What did you skip count by? _____

2.) 42, 44, _____ , 48, _____

What did you skip count by? _____

3.) Starting at 5, skip count by 5s, what are the first 6 numbers? _____ ,

_____ , _____ , _____ , _____ , _____

4.) Write an addition expression to show 4 groups of 3.

_____

5.) How many groups of 5 is 45? _____

6.) Is the 7th group of 5 even or odd? _____

7.) What does 8 groups of 2 equal? _____

8.) We were skip counting by 3s and stopped shading at 39. Circle the letter of the number that would be shaded next.

A 40
B 42
C 36
D 41

Equal groups

Materials needed:

1. 1 number cube

Directions:

1. Roll the number cube to find the number of equal groups.
2. Draw a picture for the equal groups.
3. Roll the number cube to find the number in each group.
4. Draw a picture for the number in each group.
5. Complete the equal-groups sentence.
6. Write a repeated addition equation.

1.) _____ groups of _____ equals _____.

repeated addition: _____

2.) _____ groups of _____ equals _____.

repeated addition: _____

3.) _____ groups of _____ equals _____.

repeated addition: _____

Helen had 10 beads. She put them in equal groups to make bracelets. She had 2 groups of 3 and 1 group of 4. Does Helen have all the beads in equal groups?

1.) What is the question asking you to find? _____

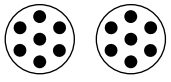
2.) Model Helen's groups.

3.) Are these in equal-groups? _____

4.) Draw 10 beads in equal groups.

5.) _____ groups of _____ equals _____

Write the repeated addition equation for the equal-groups model or the equal-groups sentence.

6.)  _____

7.)  _____

8.) 3 groups of 8 equals 24. _____

Draw an equal groups model for each of the following.

7.) 6 groups of 3 equals 18.

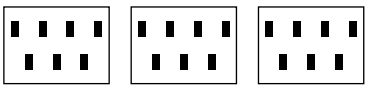
8.) 4 + 4 + 4 + 4 + 4 = 20

9.) 4 groups of 3 = 2 groups of 6

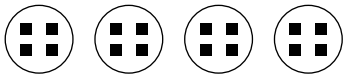
1.) Skip count by 2s to continue the pattern. 112, 114, _____ , 118, _____

2.) Skip count by 5s to continue the pattern. 235, _____ , 245, 250, _____

Complete the equal groups sentence for the equal groups model.

3.)  _____ groups of _____ equals _____.

Write the repeated addition equation for the equal-groups model or the equal groups sentence.

4.)  _____

5.) 5 groups of 9 equals 45. _____

Draw an equal groups model.

6.) 4 groups of 8 equals 32.

Draw an equal groups model.

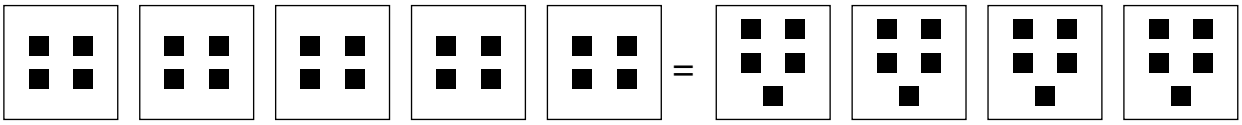
7.) 2 + 2 + 2 + 2 + 2 + 2 + 2 = 7 + 7

8.) Sally has 6 buttons to sew on her sweater. Each button has 4 holes. Draw an equal groups model for Sally's 6 buttons with 4 holes each.

9.) How many button holes are there altogether on the 6 buttons? _____

Julian sees 4 baskets with 3 apples in each basket. He writes the multiplication expression 4 × 4 × 4 to find the total number of apples in all 4 baskets. Is his multiplication expression correct? Why?

Write a repeated addition equation and a multiplication equation for each equal groups model.

1.) 

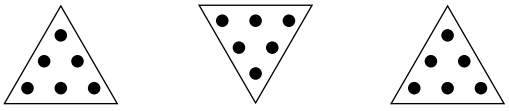
Model 1 = Model 2

Addition:

_____ = _____

Multiplication:

_____ = _____

2.) 

Model 1 = Model 2

Addition:

_____ = _____

Multiplication:

_____ = _____

3.) 

Model 1 = Model 2

Addition:

_____ = _____

Multiplication:

_____ = _____

Write a repeated addition equation for each equal-groups sentence.

1.) 3 groups of 6 equals 18. _____

2.) 5 groups of 7 equals 35. _____

Write a multiplication equation for each equal-groups sentence.

3.) 7 groups of 3 equals 21. _____

4.) 8 groups of 4 equals 32. _____

Write a multiplication equation for each repeated addition equation.

5.) 3 + 3 + 3 + 3 + 3 = 15 _____

6.) 6 + 6 + 6 + 6 = 24 _____

1.) Draw an equal groups model for 6 groups of 8.

2.) Draw an equal groups model for 4 + 4 + 4.

Write a repeated addition equation and a multiplication equation for each equal-groups model.

3 groups of 2 equals 6.

3.) _____ (addition)

4.) _____ (multiplication)

4 groups of 9 equals 36.

5.) _____ (addition)

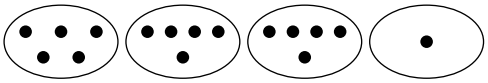
6.) _____ (multiplication)

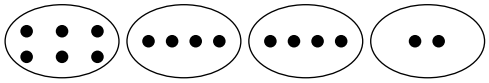
Write a multiplication equation for each repeated addition equation.

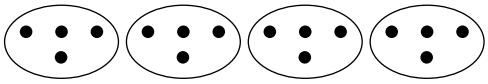
7.) 8 + 8 + 8 = 24 _____

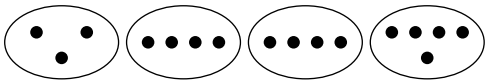
8.) 10 + 10 + 10 + 10 + 10 = 50 _____

9.) Kyle separated 16 apples into baskets and told the teacher they were in equal groups. Circle the answer that shows the apples in equal groups.

A 

B 

C 

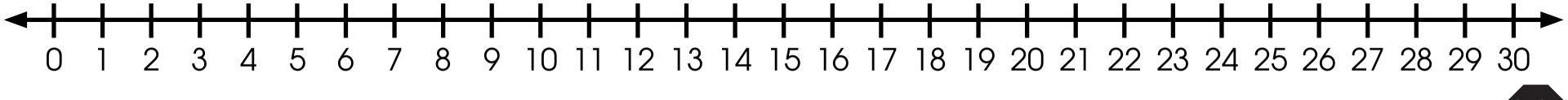
D 

$4 \times 6 =$ _____

_____ groups of _____ equals _____

Draw the equal-groups.

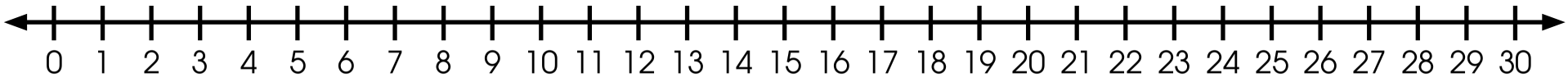
Use the number line to solve.



STOP

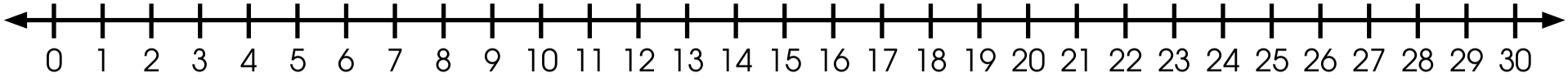
1.) 2 × 10 = _____

_____ groups of _____ equals _____



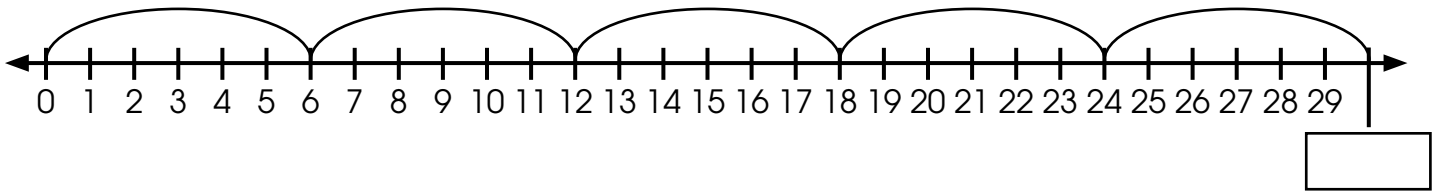
2.) 7 × 4 = _____

_____ groups of _____ equals _____



Fill in the boxes and solve the multiplication problem using the number line.

1.) [ ] × 2 [ ] × 4 [ ]

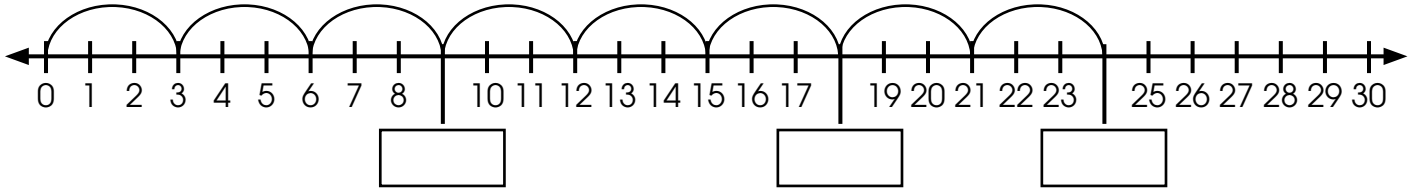


[ ]

5 × 6 = [ ]

[ ] groups of [ ] equals [ ]

2.) × 1 [ ] × 3 × 4 × 5 [ ] [ ] × 8

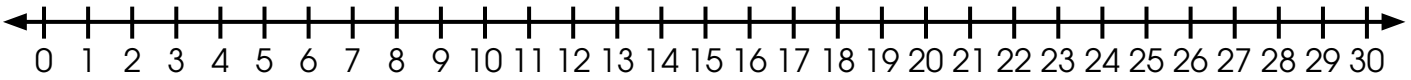


[ ] [ ] [ ]

8 × 3 = [ ]

[ ] groups of [ ] equals [ ]

3.) Jackson is asked to bag up cookies at the bakery where he works. He is told to put 3 cookies in each bag. He has been given 7 bags to fill. How many cookies will Jackson need to fill all 7 bags?



_____ groups of _____ equals _____

_____ × _____ = _____

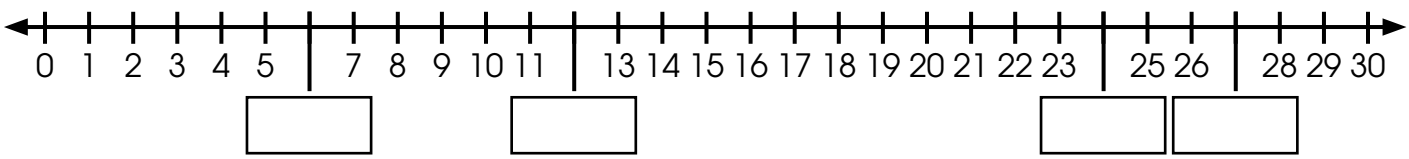
1.) Write the repeated addition equation for the equal-groups model.

_____

2.) Draw the equal groups model for 2 groups of 8.

Fill in the boxes, solve the multiplication problem using the number line.

3.)

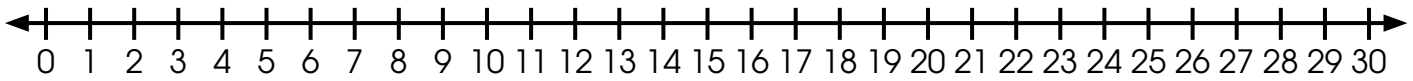


4.) 9 × 3 = ☐

5.) ☐ groups of ☐ equals ☐

Represent the problem on the number line and solve.

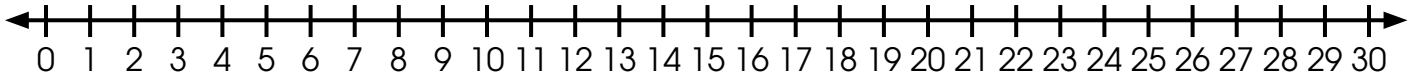
6.)



8 × 2 = _____

_____ groups of _____ equals _____

7.) Represent the problem on the number line and solve.

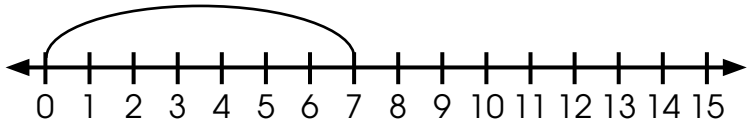


3 × 6 = _____

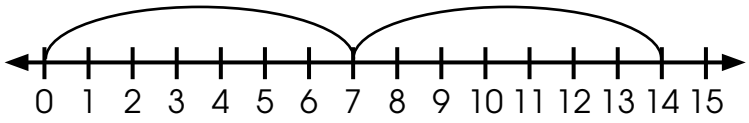
_____ groups of _____ equals _____

8.) Karen was asked to model 2 × 7 on the number line. Circle the answer that shows the correct model.

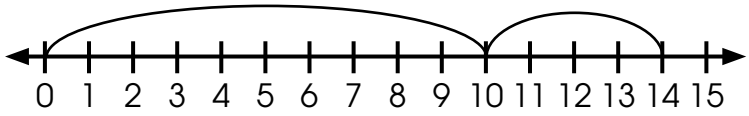
A



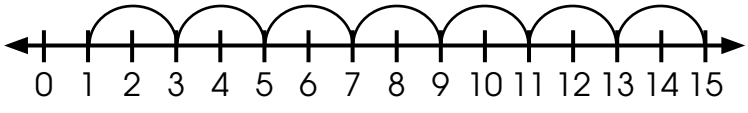
B



C



D



Use addition or subtraction to find the unknown.

1.)

n	
18	7

2.)

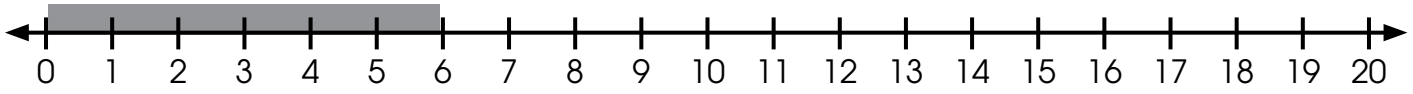
30	
n	24

3.) Write a story problem using the numbers from 1 of the strip diagrams above.

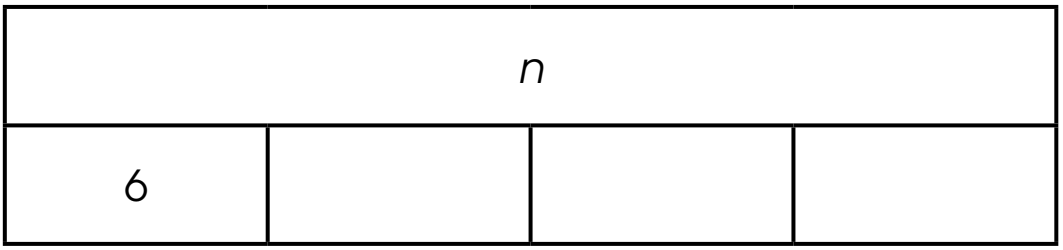
STOP

$3 \times 6 = \underline{?}$

_____ groups of _____



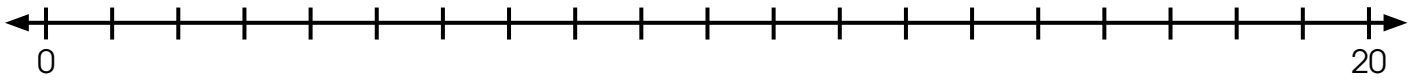
Workspace



_____	×	_____	=	_____
number of parts		value of each part		whole

Use the number line and draw a strip diagram to solve.

1.) Over the winter break, Trevor played video games for 4 hours each day. If he played video games for 3 days in a row, how many hours of video games did he play for all 3 days?

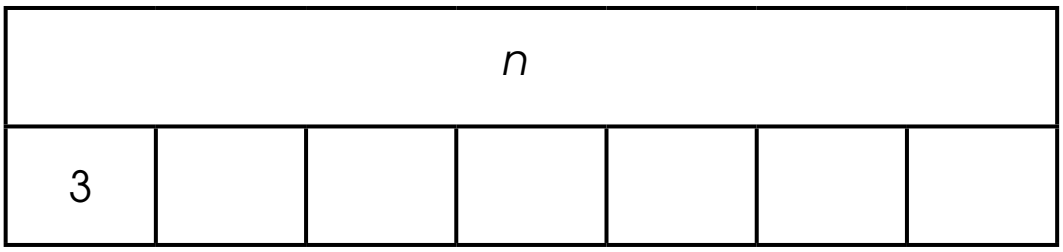


____ × ____ = ____

3.)

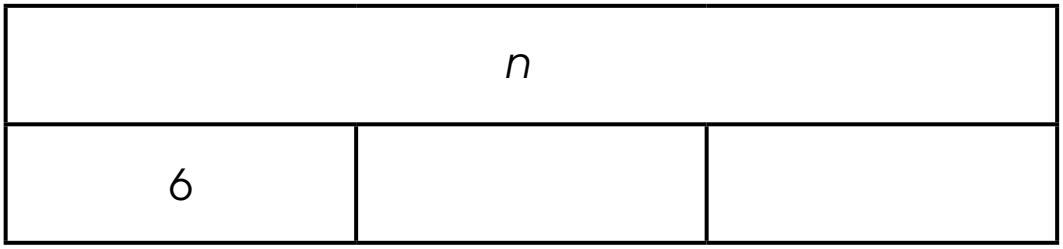
Write multiplication equations for the strip diagrams and solve.

2.)



Workspace

____ × ____ = ____



Workspace

____ × ____ = ____

Draw a strip diagram for the given multiplication problems and solve.

4.) 5 × 4 = _____

Workspace

5.) 6 × 6 = _____

Workspace

6.) Write a story problem for one of the strip diagram above.

STOP

1.) Write a multiplication sentence for the equal groups sentence.

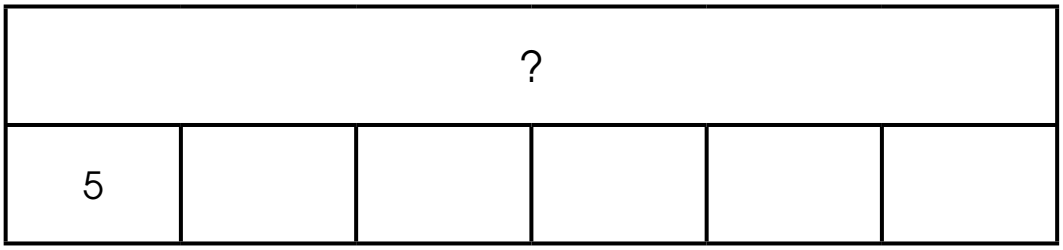
9 groups of 4 equals 36 _____

2.) Write a multiplication equation for the repeated addition equation.

8 + 8 + 8 + 8 + 8 + 8 + 8 = 56 _____

Write multiplication equations for the strip diagrams and solve.

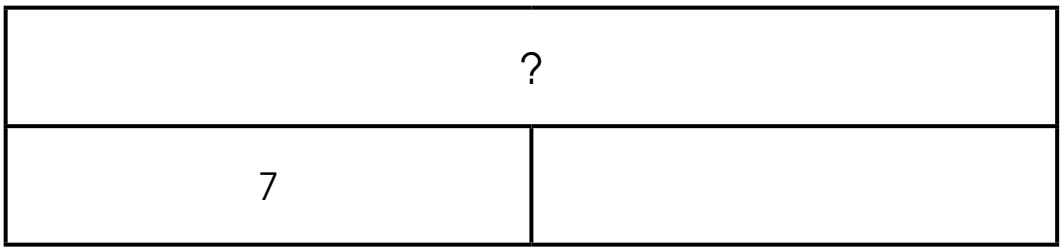
3.)



Workspace

_____ × _____ = _____

4.)



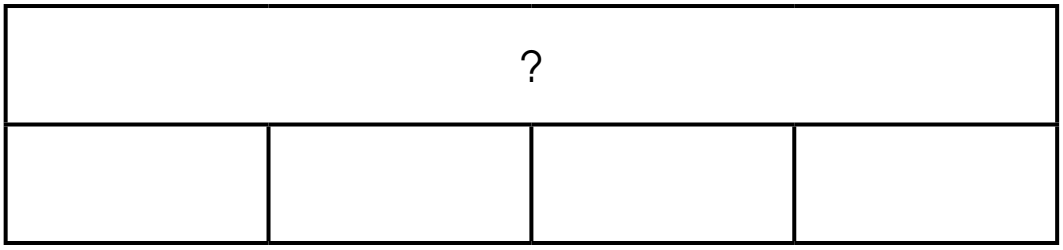
Workspace

_____ × _____ = _____

Draw a strip diagram for the multiplication problems and solve.

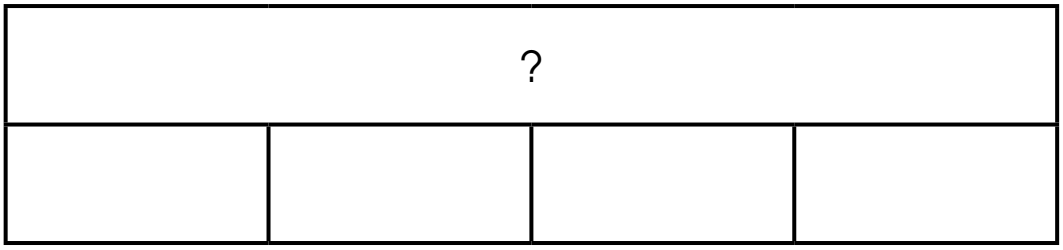
5.) 4 × 4 = _____ Workspace

6.)



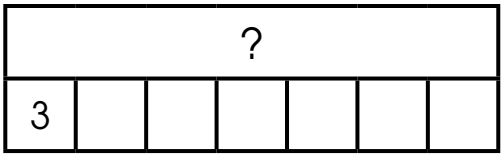
7.) 4 × 8 = _____ Workspace

8.)

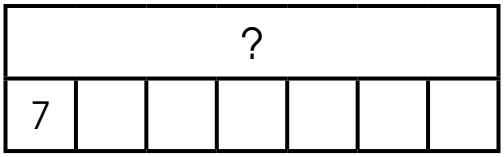


9.) Jonah ran 3 miles every day for 1 week. After 1 week, how many miles did Jonah run in all? (Remember: 1 week = 7 days) Circle the letter of the strip diagram that represents this problem.

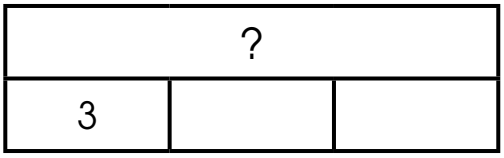
A 7 × 3



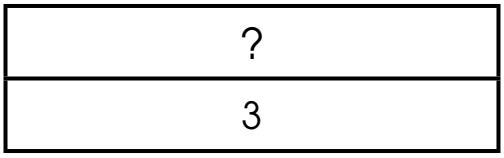
C 7 × 7



B 3 × 3



D 3 × 1



Equal groups:

Equal-groups sentence: _____

Repeated addition equation: _____

Multiplication equation: _____

Array:

How many rows? _____

How many columns? _____

Equal-groups sentence: _____

Repeated addition equation: _____

Multiplication equation: _____

STOP

1.) Use dots or circles to draw an array with 7 rows of 6.

2.) Write a multiplication equation for the array you drew.

_____

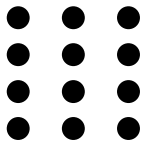
3.) Write the equal-groups sentence for 5 × 2 =10.

_____ groups of _____ equals _____

_____ groups of _____ equals _____

4.) Draw an array to model 5 groups of 2.

5.) Write a repeated addition equation for this array.



_____

6.) What is the multiplication equation for this array?

_____

Write a multiplication sentence for the bar models and solve.

1.)

Workspace

n					
8	8	8	8	8	8

_____ × _____ = _____

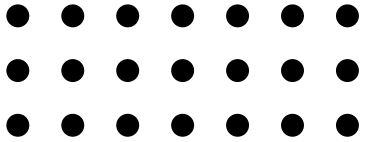
number of parts | value of each part | whole

2.)

Workspace

n								
3	3	3	3	3	3	3	3	3

_____ × _____ = _____



3.) Write a repeated addition equation for this array.

_____

4.) What is the multiplication equation for this array?

_____

5.) Use dots or circles to draw an array with 4 rows of 6.

6.) Write a multiplication equation for the array you drew.

_____

7.) How do equal groups and array models show multiplication?

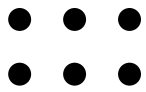
_____

_____

_____

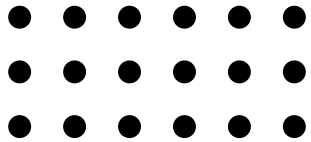
8.) The box of crayons has 3 rows with 6 crayons in each row. Circle the letter of the array and multiplication equation that represents the crayon box.

A



$3 \times 2 = 6$

B

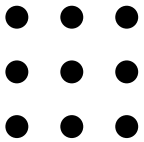


$3 \times 6 = 18$

C

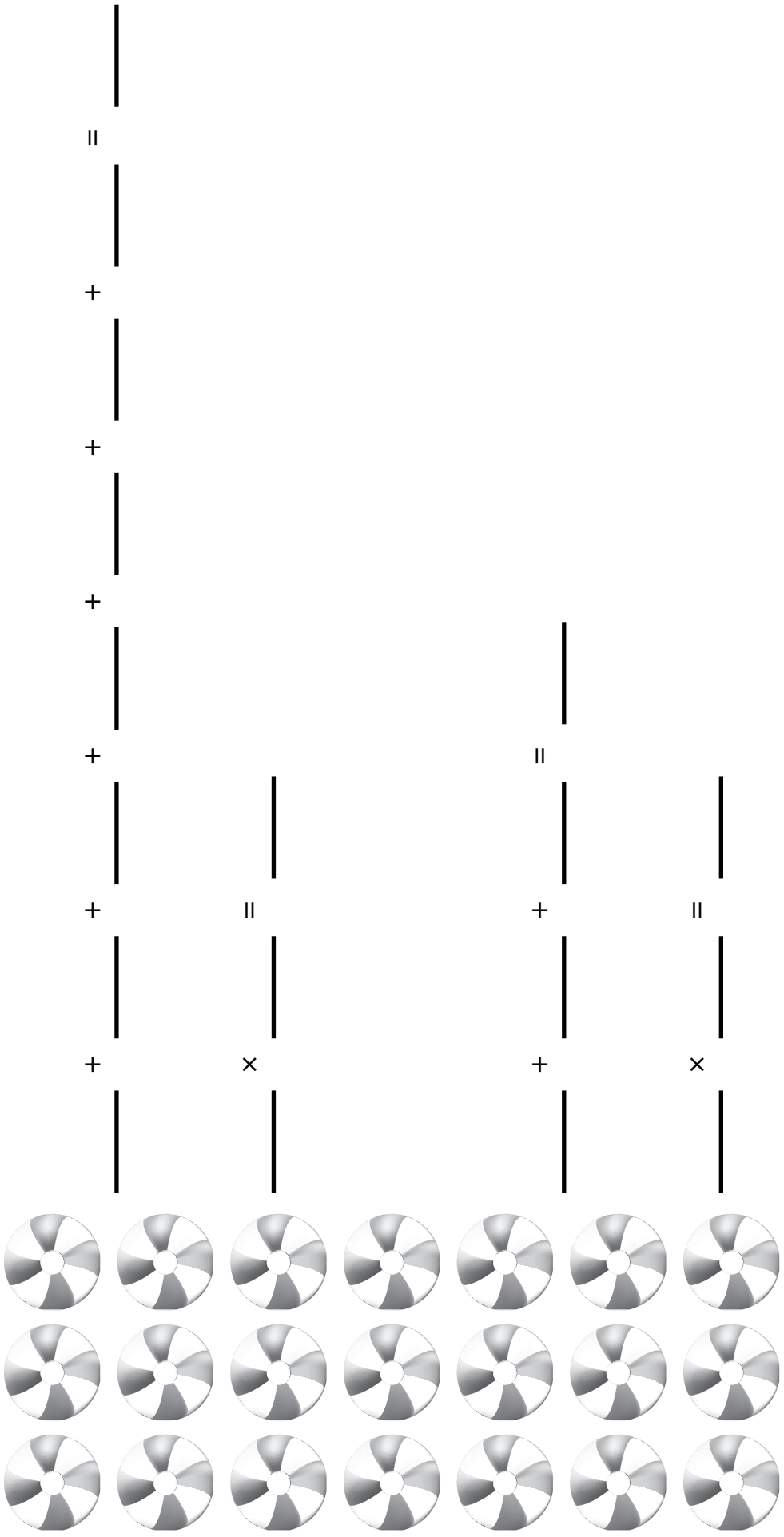
$6 \times 1 = 6$

D

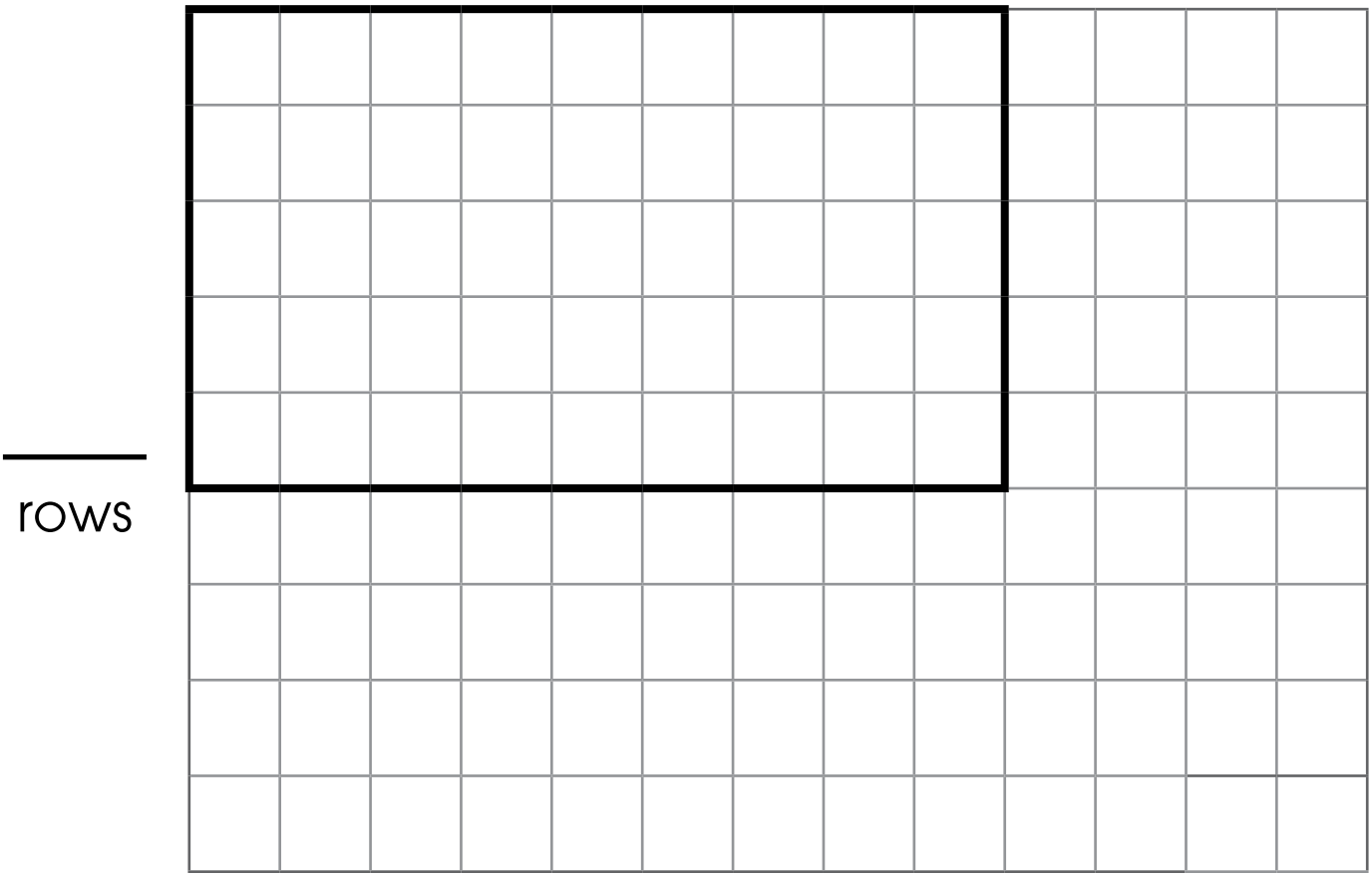


$3 \times 3 = 9$

STOP



_____
columns



_____
rows

_____ × _____ = _____

_____ × _____ = _____

The area of the carpet is _____ square units.

Sienna is sewing a quilt. She put the quilt squares in 3 rows of 10 quilt squares. Find the area of the quilt using the tiles.

Write 2 multiplication equations that represent the array.

1.) _____ × _____ = _____

2.) _____ × _____ = _____

The area of the quilt is _____ square units.

Area of My Neighborhood

Directions:

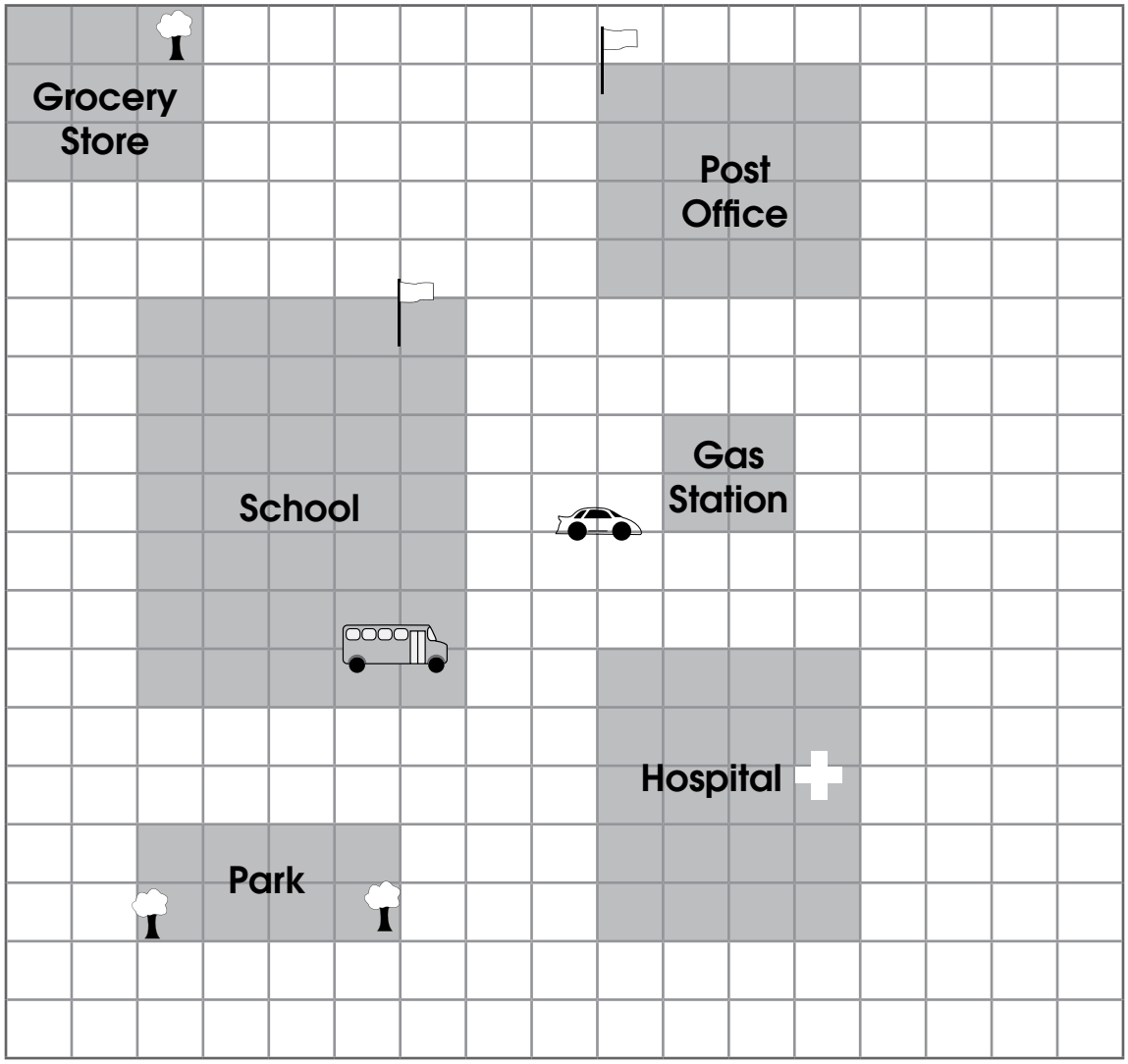
1. Write a multiplication expression.
2. Find the area of each place in the neighborhood.
3. Record your answers here:

Gas Station: _____ × _____ Hospital: _____ × _____ Grocery Store: _____ × _____

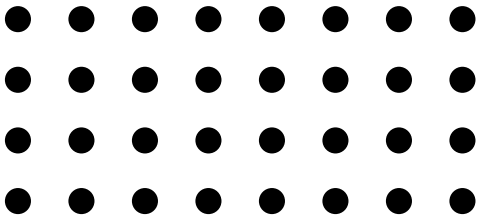
A = _____ *A* = _____ *A* = _____

Park: _____ × _____ School: _____ × _____ Post Office: _____ × _____

A = _____ *A* = _____ *A* = _____



Read and solve. Look at the array below.



1.) Write a repeated addition equation for the array.

_____

2.) Write a multiplication equation for the array. _____

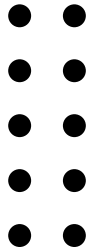
3.) Write another multiplication equation for the array. _____

4.) The package of batteries has 6 rows of 2 batteries in each row. Which array and multiplication sentence best represents the batteries.

A

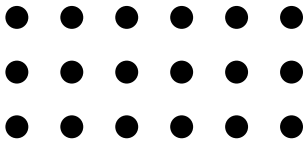
6 × 1

B



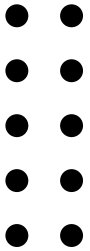
5 × 2

C



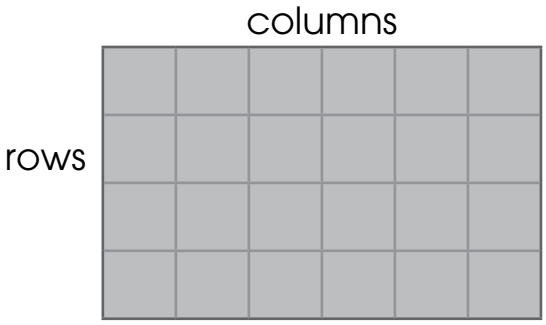
3 × 6

D



6 × 2

Look at the shaded area.



5.) How many columns? _____

How many in each column? _____

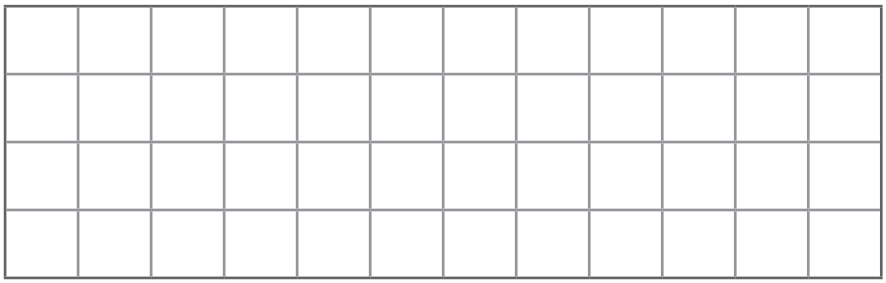
6.) How many rows? _____

How many in each row? _____

7.) Write 2 multiplication equations that represent the shaded area.

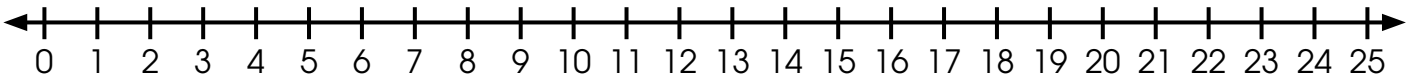
_____ × _____ = _____ _____ × _____ = _____

8.) Aaron is drawing a model of the kitchen floor. He shaded 8 columns of 3 tiles. Use the grid to show Aaron's drawing of the floor.



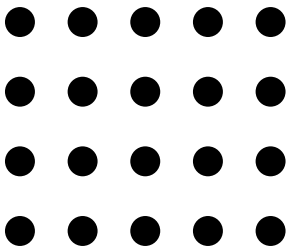
What is the area of the kitchen floor? _____ square units

Number line:



3 × 8 = _____

Array model:



Repeated addition equation:

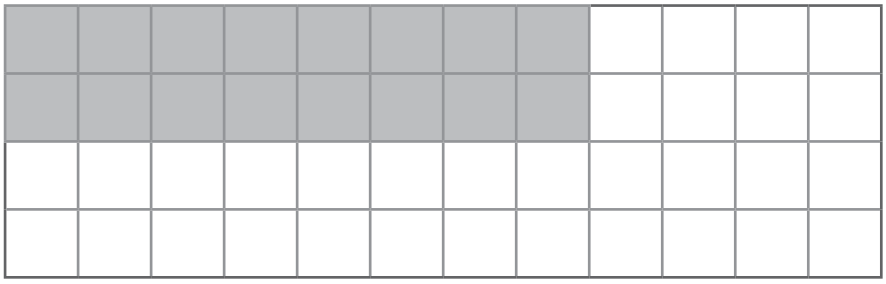
_____ + _____ + _____ + _____ = _____

Multiplication equation:

_____ × _____ = _____

_____ × _____ = _____

Area Model:



Multiplication equation:

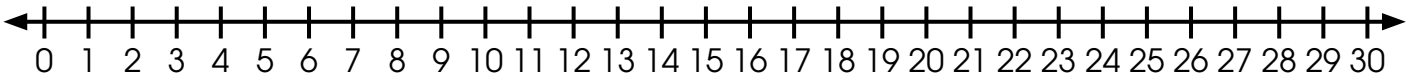
_____ × _____ = _____

_____ × _____ = _____

The area is _____ square units.

Karina earned $7 a week for doing her chores. She did her chores for 4 weeks. How much money did Kristina earn?

Use the number line to solve.



1.) Write the repeated addition equation.

_____

2.) Write 2 multiplication equations.

_____ _____

3.) Kristina earned $ _____ .

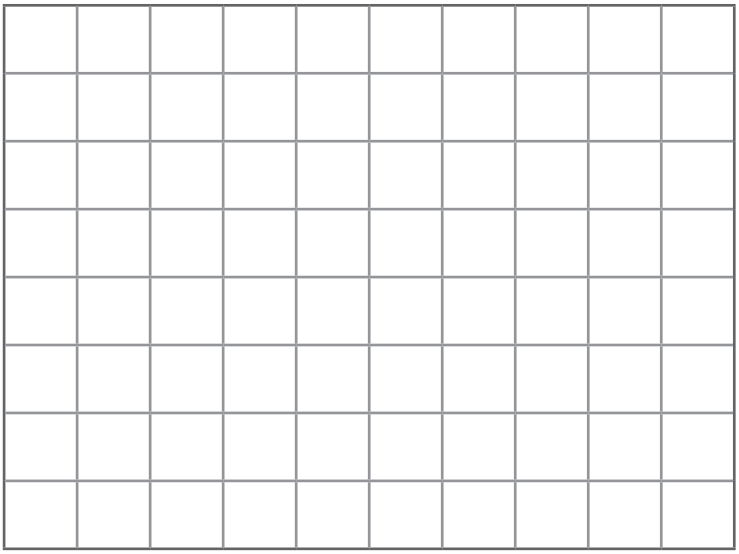
Read the problem:

7×6

Write a repeated addition equation.

Draw an array using circles.

Shade the area in the grid.



Solve the problem:

$7 \times 6 =$ _____

1.) Use dots or circles to draw an array with 5 rows of 2.

2.) Write the repeated addition equation.

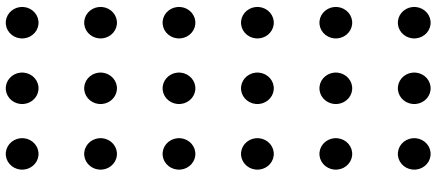
_____

3.) Write 2 multiplication equations for the array.

_____

_____

4.) Look at the array below.



Which expression best represents the array?

A 3 × 5 **B** 6 × 2 **C** 6 × 3 **D** 7 × 3

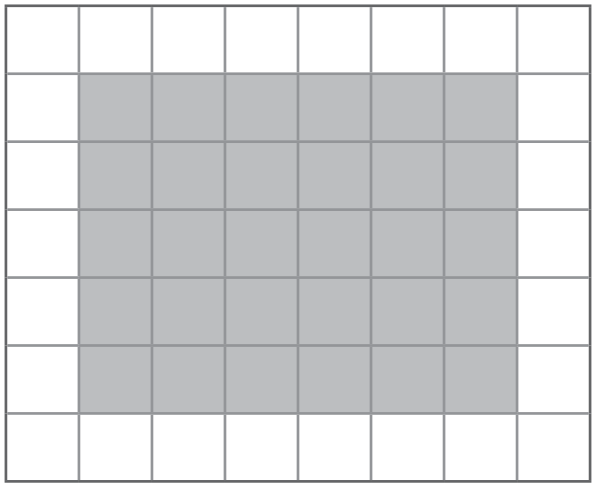
5.) Look at the shaded area.

Write 2 multiplication equations that represent the shaded area.

_____ _____

6.) What is the shaded area? _____ square units

7.) Matthew is building a dog house. What is the area of the dog house in his drawing?



The area of the dog house is _____ square units.

8.) Which multiplication equations can be used to find the area of the dog house?

A 5 × 5 **B** 5 × 6 **C** 5 × 7 **D** 6 × 4

Solve each problem using the multiplication table. Circle the product for each problem.

1.) 9 × 6 = _____

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

3.)
$$\begin{array}{r} 7 \\ \times\ 3 \\ \hline \end{array}$$

4.) 8 × 4 = _____

5.) 6 × 7 = _____

6.)
$$\begin{array}{r} 2 \\ \times\ 9 \\ \hline \end{array}$$

Use the multiplication table to list the multiples.

7.) List the multiples of 7 to 70. _____

8.) List the multiples of 3 to 30. _____

9.) The Cowboys scored 6 touchdowns during the football game on Sunday. Each touchdown earned the team 7 points. What is the score after 6 touchdowns? Write the problem and use your multiplication table to solve.

Connect Four

Materials needed:

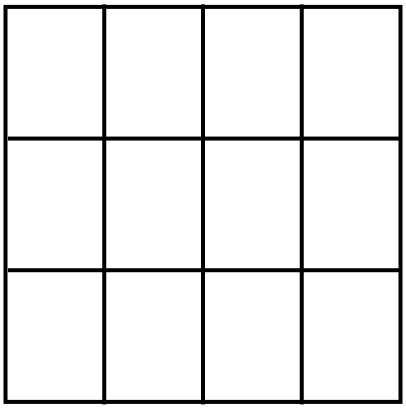
1. 2 number cubes
2. 2 different colored counters
3. Multiplication chart

Directions:

1. Roll a number cube to see who goes first.
2. **Player 1** rolls both number cubes to create a multiplication problem.
3. Place your counter on the product.
4. **Player 2** repeats the same steps.
5. The first player to get 4 in a row wins.
6. Once a square is marked, it cannot be used again. Use your knowledge of the Commutative Property of Multiplication to find a square that is not marked.

Read and solve.

1.) Write a multiplication equation using the area model below.



_____

2.) Write a multiplication equation using the bar model.

?			
3			

_____

Use the words "factor" and "product" to fill in the blanks.

3.) _____ × _____ = _____

Solve the multiplication problems using the multiplication table.

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

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

6.) $9 \times 8 =$ _____

7.) $3 \times 8 =$ _____

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

9.) $8 \times 8 =$ _____

Choose the best answer.

10.) During the football game on Friday, the Tigers scored 8 field goals. Each field goal is worth 3 points. How many points did the tigers earn for the field goals?

A $8 \times 3 = 24$

C $3 \times 8 = 42$

B $8 \times 7 = 56$

D $8 \times 3 = 12$

Equal Share: Breaking quantities apart so that everyone gets the same amount.

_____ shared equally with _____ students equals _____ per student with _____ leftover.

Use counters to solve.

1.) 4 friends found a treasure chest with 21 coins in it. How many coins did each friend get after the friends shared the coins equally?

_____ shared equally with _____ friends equals _____ per friend with _____ leftover.

2.) 6 pirates found a lost treasure of gold. So no one would get hurt, the pirates decided to share the 28 pieces of gold equally. How many pieces of gold did each pirate get?

_____ shared equally with _____ pirates equals _____ per pirate with _____ leftover.

Equal Share Charades

Materials needed:

1. Equal Share Charade Cards

Directions:

1. **Player 1** picks a charade card.
2. Using counters, **Player 1** "acts out" the problem.
3. **Player 2** watches carefully to try to figure it out what problem player 1 is solving.
4. **Player 2** records their guess in the equal groups sentence below.
5. If player 2 is correct, then the players switch roles.
6. If player 2 is incorrect, player 1 has 1 more chance to act out the problem.

1.) _____ shared equally with _____ friends equals _____ per friend with _____ leftover.

2.) _____ shared equally with _____ friends equals _____ per friend with _____ leftover.

3.) _____ shared equally with _____ friends equals _____ per friend with _____ leftover.

Use the multiplication table to solve.

1.) $\begin{array}{r} 6 \\ \times\ 8 \\ \hline \end{array}$ **2.)** $\begin{array}{r} 7 \\ \times\ 9 \\ \hline \end{array}$ **3.)** $\begin{array}{r} 4 \\ \times\ 6 \\ \hline \end{array}$

4.) Circle the factors in the multiplication sentence.

$$5 \times 7 = 35$$

Use counters to solve.

5.) 5 students equally shared 14 pencils. How many pencils did each student get? (1 point per space)

_____ shared equally with _____ students equals _____ per student with _____ leftover.

6.) 2 rats were given 12 pieces of cheese. To the scientist's amazement, the rats shared the cheese equally. How many pieces of cheese did each rat eat? (1 point per space)

_____ shared equally with _____ rats equals _____ per rat with _____ leftover.

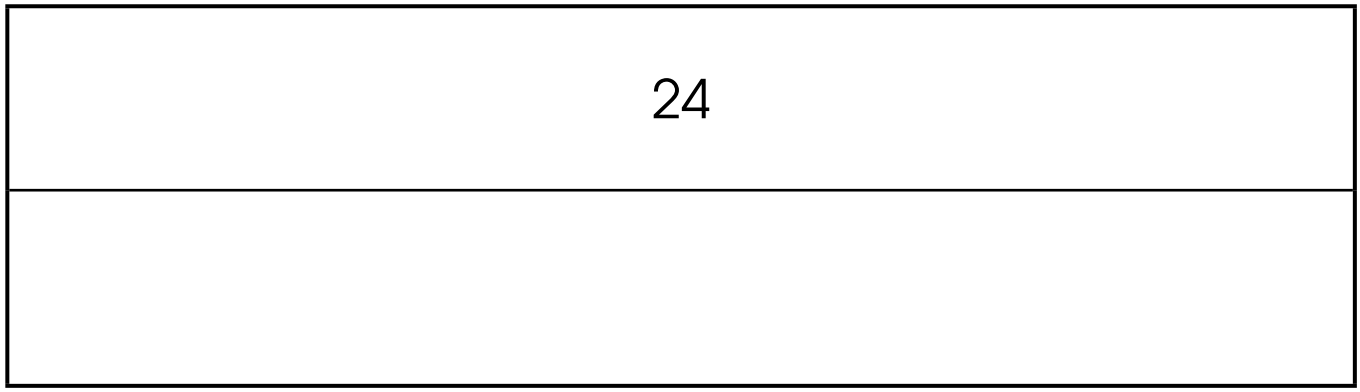
Circle the best answer.

7.) 4 friends found 18 silver coins. Which way shows the friends sharing equally?

A 18 shared equally with 4 friends equals 3 per friend with 6 leftover.
B 18 shared equally with 4 friends equals 4 per friend with 2 leftover.
C 4 shared equally with 18 friends equals 4 per friend with 2 leftover.
D 18 shared equally with 4 friends equals 5 per friend with 0 leftover.

STOP

Equal Share



_____ divided equally into _____ groups

equals _____ with _____ leftover.

Use counters to solve the division problem. Draw dots in the strip diagram to represent the counters.

1.) 16 divided equally into 4 groups equals _____.

16			
?			

2.) Isabella made treats for her teachers as a thank you. She made 28 treats. She has 7 teachers she wants to give treats to. If she gives each teacher the same amount, how many will each teacher receive?

28 divided equally into 7 groups equals _____.

_____						
?						

3.) 24 divided equally into 6 groups equals _____.

_____					

Is this reasonable? Look at each problem and decide if it is reasonable. Write yes or no on the line and explain why or why not. Draw a strip diagram or use counters if needed.

4.) 36 divided equally into 4 groups equals 19. _____

5.) 18 divided equally into 9 groups equals 2. _____

Use the multiplication table to solve.

1.) 3 × 8 = ____

2.) 4 × 7 = ____

3.) 6 × 5 = ____

Use counters to solve the division problem. Draw dots in the strip diagram to represent the counters.

4.) 12 divided equally into 2 groups equals _____.

12	
?	

5.) 9 divided equally into 3 groups equals _____.

_____		
?		

6.) 10 divided equally into 5 groups equals _____.

_____

Choose the most reasonable answer.

7.) Carlos has 11 stickers. He wants to give his 2 younger brothers the same amount. How many stickers should his brothers each receive?

A 22 stickers each

B 13 stickers each

C 9 stickers each

D 5 stickers each

Ms. Louis has 20 students in her class. She is planning a group project for her class and wants each group to have 4 students. How many groups will she be able to break her class into? Will there be any students leftover?

Divide 20 counters into groups of 1.

1.) How many groups do you have? _____

Divide 20 counters into groups of 2.

2.) How many groups do you have? _____

3.) How many are leftover? _____

Use #2 and #3 to complete the division sentence.

4.) _____ divided into equal groups of 2 equals _____ with _____ leftover.

Divide 20 counters into groups of 4.

5.) Draw a picture using the strip diagram above of the equal group.

6.) How many groups do you have? _____

7.) How many are leftover? _____

Use #5 to complete the division sentence.

8.) _____ divided into equal groups of _____ equals _____with _____ leftover.

Answer the following questions using the information you gathered on the first practice sheet.

1.) Division is related to repeated _____ as multiplication is related to repeated _____.

2.) Explain how division and subtration are related.

_____

_____

_____

_____

3.) What happens to the number of groups when more counters are in each group? _____

_____

4.) How does the amount being divided compare to the answer, the number of groups made? _____

_____

5.) In your own words, explain division or describe an example of division.

_____

_____

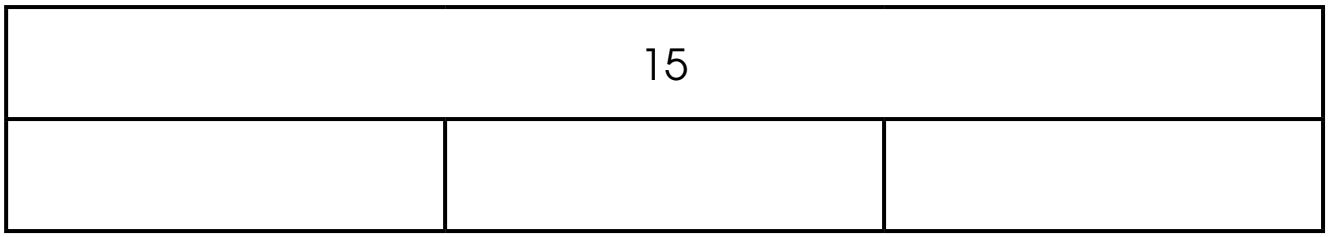
_____

_____

STOP

Use the strip diagram to complete the division sentence.

1.)



_____ divided equally into 3 groups equals _____.

2.) 6 students equally shared 13 pencils.

_____ shared equally with _____ students equals _____ per student with _____ leftover.

3.) When you divide the whole into more groups, what happens to the amount in each group?

A The amount in each group is less.

B The amount in each group is more.

C The amount in each group doesn't change.

D The amount in each group only changes the whole.

Divide 10 counters into groups of 3.

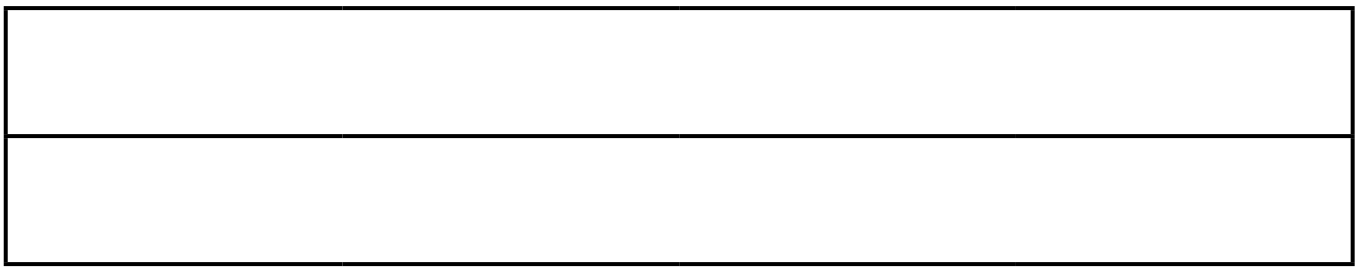
4.) Draw a picture of the equal group.

5.) How many groups do you have? _____

6.) How many are leftover? _____

7.) Division is related to repeated _____ .

4 × 9



part = _____

Repeated addition equation: _____

Multiplication equation: _____

Equal groups

Workspace

STOP

Equal groups

Workspace

STOP

Use the strip diagram and repeated subtraction to solve the division problem.

Workspace

Read and solve.

1.) Jalen has 56 baseball cards. His dad bought him plastic pages to keep his cards in so the cards would not get bent. Each page holds 8 cards. How many pages will Jalen need in order to protect all of his baseball cards?

Workspace

_____ pages

Use the strip diagram to complete the equal-groups division sentence.

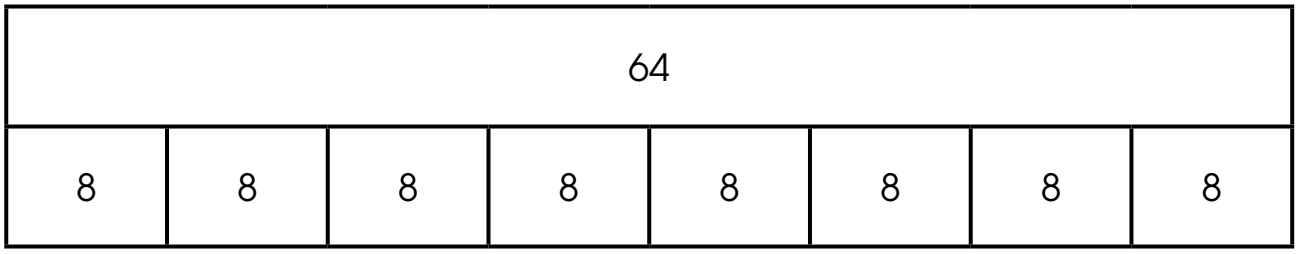
2.)

42						
6	6	6	6	6	6	6

_____ divided into groups of _____ equals _____ equal groups.

Use the strip diagram to complete the equal-groups division sentence.

3.)



_____ divided into groups of _____ equals _____ equal groups.

Read each problem and solve.

1.) Divide 36 into groups of 8.

_____ divided into equal groups of _____ equals _____ with _____ leftover.

Draw dots to solve the division problem.

_____

12 divided equally into 4 groups equals _____.

Use the strip diagram and repeated subtraction to solve.

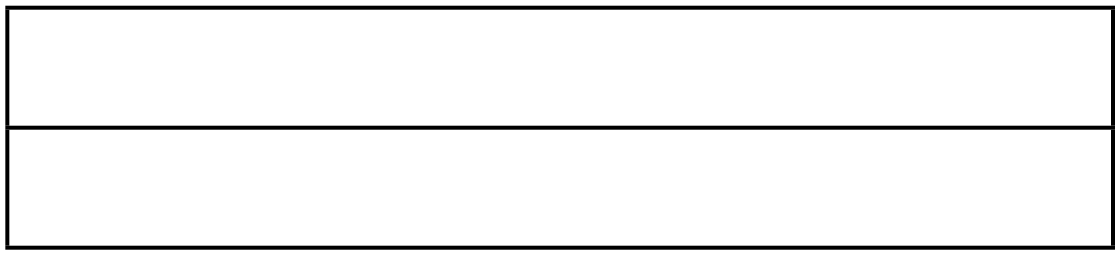
3.) Jarren had 36 bottles in his bottle collection. He decided to put them in groups of 4. How many groups of 4 was Jarren able to make?

_____ groups

Workspace

4.) 25 divided into groups of 5 equals how many groups?

Workspace



_____ groups

Use the strip diagram to complete the sentence.

5.)

24							
3	3	3	3	3	3	3	3

_____ divided into groups of 3 equals _____ equal groups.

6.)

63								
7	7	7	7	7	7	7	7	7

_____ divided into groups of 7 equals _____ equal groups.

Choose the correct strip diagram.

7.) 45 divided into groups of 9 equals 5 equal groups.

A

45		
15	15	15

B

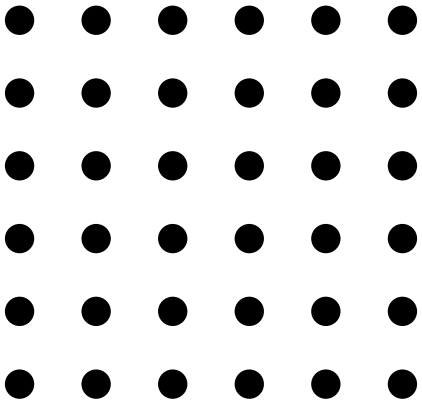
45								
9	9	9	9	9	9	9	9	9

C

45				
9	9	9	9	9

D

45				
5	5	5	5	5



_____ groups of _____ equals _____

Write the multiplication equation for the array.

_____ × _____ = _____

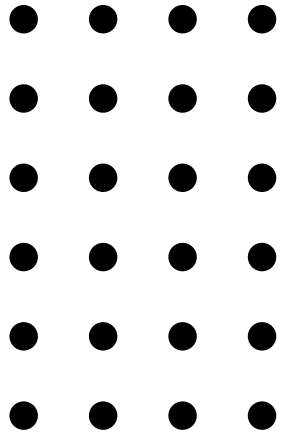
Factor **Factor** **Product**

Write the division equation from the multiplication equation.

_____ ÷ _____ = _____

Dividend **Divisor** **Quotient**

Module MDR
Lesson 14
Modeled Practice



Multiplication equations:

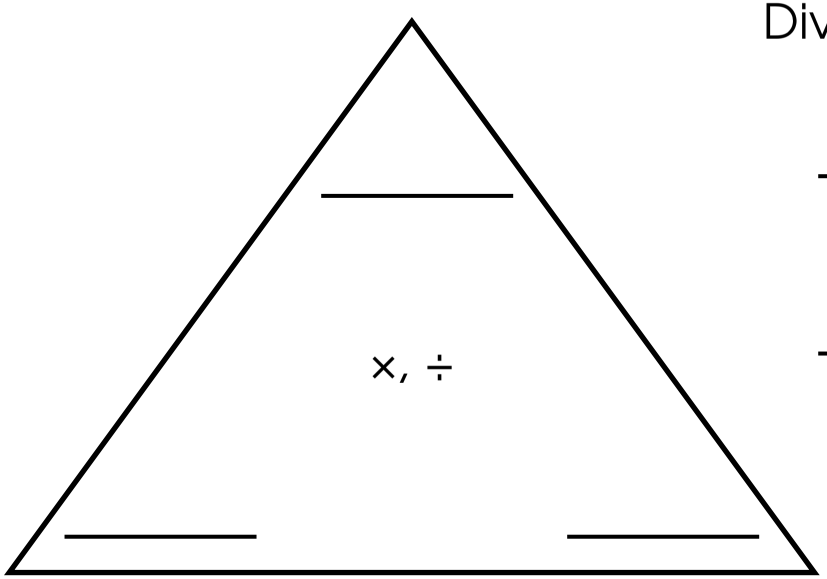
_____ × _____ = _____

_____ × _____ = _____

Division equations:

_____ ÷ _____ = _____

_____ ÷ _____ = _____



STOP

Use the strip diagram to complete the sentence.

1.)

72							
9	9	9	9	9	9	9	9

_____ divided into groups of 9 equals _____ equal groups.

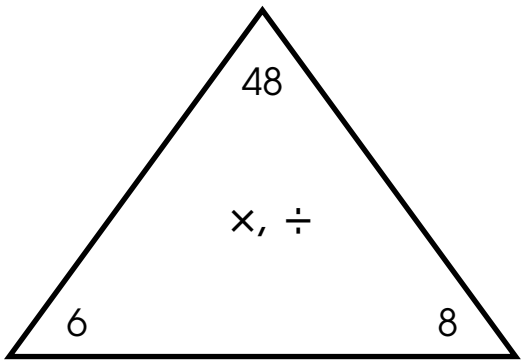
Use the strip diagram and repeated subtraction solve.

2.) Divide 56 into groups of 7.

Workspace

_____ groups

Write the 4 equations for the number family.



3.) _____

4.) _____

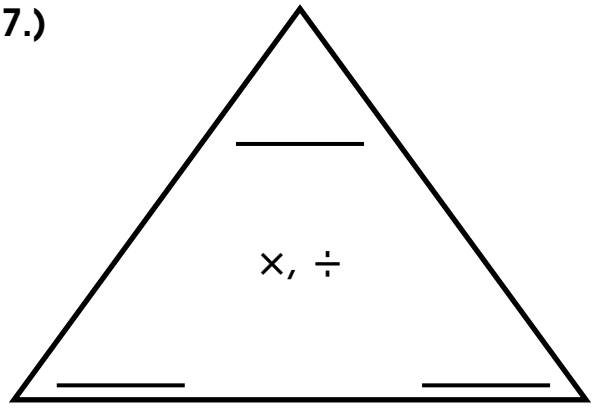
5.) _____

6.) _____

Complete the number family triangle from the given number sentences.

$5 \times 7 = 35$ $35 \div 5 = 7$

7.)



Write another multiplication equation for this fact family.

8.) _____ × _____ = _____

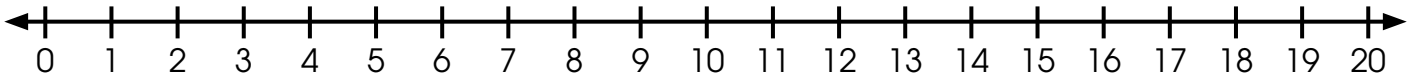
Write another division equation for this fact family.

9.) _____ ÷ _____ = _____

There are 12 desks and 1 pencil on each desk. How many pencils are there?

_____ equal groups of _____

_____ × _____



There are _____ pencils.

Write your own problem using the Identity Property.

_____

Write the corresponding multiplication equation.

_____

Write 2 division equations in this number family.

_____

_____

1.) Draw an equal-groups model using dots or circles to solve 9 × 0.

_____ equal groups of _____

Write the repeated addition equation.

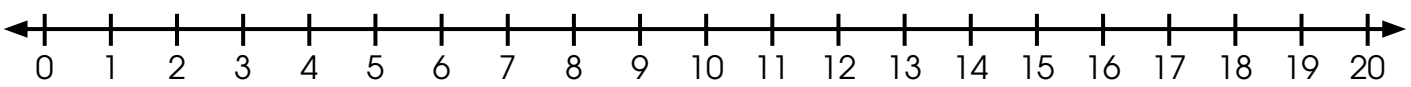
_____

Solve 9 × 10 = _____

2.) Destiny has 15 folders with 1 worksheet in each folder. How many worksheets are there?

Write the multiplication sentence. _____

Use the number line to solve.



Destiny has _____ worksheets.

Multiplication Table

×	1	2	3	4	5	6	7	8	9	10
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

Write the number family equations using 32, 8, and 4.

1.) _____ × _____ = _____

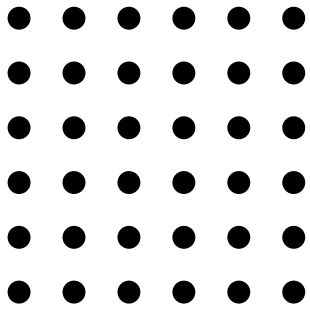
2.) _____ × _____ = _____

3.) _____ ÷ _____ = _____

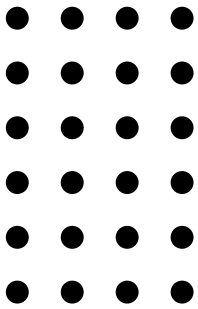
4.) _____ ÷ _____ = _____

5.) Which array best represents 6 × 6?

A

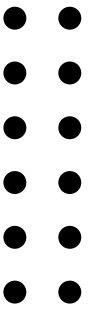


B



C

D



6.) Which equation does not belong to the number family?

A 7 × 8 = 56 **B** 7 ÷ 56 = 7 **C** 56 ÷ 8 = 7 **D** 8 × 7 = 56

7.) _____ × 9 = 0

8.) _____ = 10 × 1

9.) Write your own problem using the Zero Property of Multiplication.

_____

10.) Write the corresponding multiplication equation from problem 9.

_____

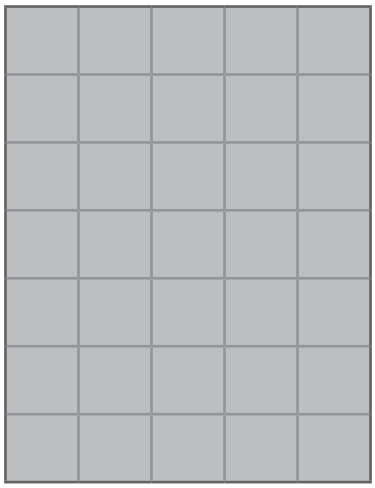
11.) Write your own problem using the Identity Property of Multiplication.

_____

12.) Write 2 division equations from the number family in number 11.

_____

_____



Write the multiplication equation for the area model.

_____ × _____ = _____

The area is _____ square units.

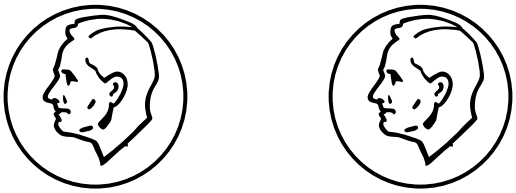
Write the corresponding multiplication equation for the area model.

_____ × _____ = _____

5 × 3 = _____

8 × 5 = _____

$10 \times 2 = \_\_\_\_\_$



Write the corresponding multiplication equation.

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

Write the 2 division equations.

_____

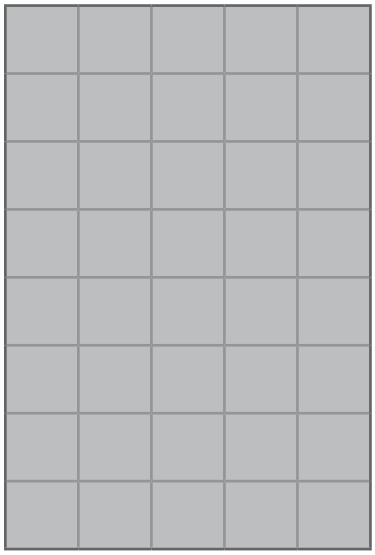
_____

$10 \times 3 = \_\_\_\_\_$

$7 \times 10 = \_\_\_\_\_$

1.) Draw an array that represents 11 × 2 and solve.

2.) Look at the area model below.



Write the multiplication equation to find the area of the shaded model and solve. _____

3.) 

Write the multiplication equation to find the total amount of money and solve. _____

Fill in the blank for each problem.

1.) _____ = 12 × 1

2.) _____ × 48 = 0

3.) 0 × 25 = _____

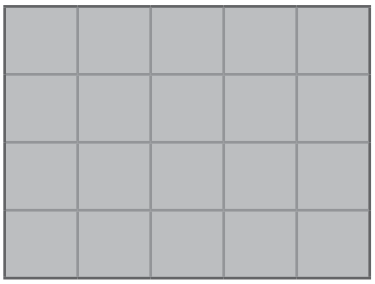
4.) _____ = 99 × 1

5.) Write the multiplication and division equations using 70, 10, and 7.

_____ _____

_____ _____

6.) Look at the shaded area model below.



Which expression can be used to find the area of the shaded model?

A 4 × 6 **B** 5 × 7 **C** 5 × 5 **D** 4 × 5

7.) Anna has 8 ten-dollar bills. How much money does Anna have? Write a multiplication equation and solve.

_____

Anna has $ _____ .

8.) Which of the following makes the number sentence true?

$$2 \times \square = 24$$

A 12
B 11
C 10
D 13

9.) _____ × 5 = 50

10.) 45 = 9 × _____

11.) 9 × _____ = 18

9×4

$(\_\_\_\_\_ - \_\_\_\_\_) \times \_\_\_\_\_$

$(10 \times 4) - (1 \times 4)$

$\_\_\_\_\_ - \_\_\_\_\_ = \_\_\_\_\_$

so $9 \times 4 = \_\_\_\_\_$

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

$\_\_\_\_\_ \div \_\_\_\_\_ = \_\_\_\_\_$

$\_\_\_\_\_ \div \_\_\_\_\_ = \_\_\_\_\_$

9 × 6

Step 1.) Think of 9 as 10 – 1.

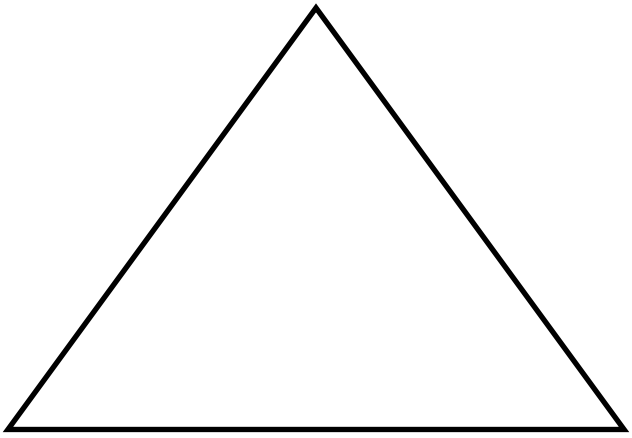
Step 2.) Multiply 10 and the other factor.

Step 3.) Subtract the other factor.

___ × ___ = ___

– ___

so 9 × 6 = ___



___ × ___ = ___

___ × ___ = ___

___ ÷ ___ = ___

___ ÷ ___ = ___

Fill in the blanks.

Word Bank				
multiply	step	factor	subtract	10 – 1

Make Ten Subtract the Factor Strategy:

Step 1.) Think of 9 as _____.

Step 2.) _____ 10 and the other _____.

Step 3.) _____ the other factor.

Use the Make Ten Subtract the Factor Strategy to solve.

1.) 7 × 9

7 × ____ = ____

– ____

7 × 9 = ____

____ × ____ = ____

____ ÷ ____ = ____

____ ÷ ____ = ____

2.) 9 × 9

____ × 10 = ____

– ____

9 × 9 = ____

____ × ____ = ____

____ ÷ ____ = ____

____ ÷ ____ = ____

3.) 9 × 3

____ × ____ = ____

– ____

9 × 3 = ____

____ × ____ = ____

____ ÷ ____ = ____

____ ÷ ____ = ____

4.) 8 × 9

____ × ____ = ____

– ____

8 × 9 = ____

____ × ____ = ____

____ ÷ ____ = ____

____ ÷ ____ = ____

Solve using the Make Ten Subtract the Factor and 1 other way.

5.) Mrs. King puts her class into teams. Each team has 4 students. There are 9 different teams. How many students are in Mrs. King's class?

Solve each problem.

1.) 0 × 4 = ____

2.)
$$\begin{array}{r} 8 \\ \times\ 5 \\ \hline \end{array}$$

3.)
$$\begin{array}{r} 5 \\ \times\ 6 \\ \hline \end{array}$$

4.) 2 × 6 = ____

5.) 9 × 6

____ × 6 = ____

– ____

9 × 6 = ____

6.) 54 ÷ 6 = ____

7.) 8 × 9

____ × ____ = ____

– ____

8 × 9 = ____

8.) 72 ÷ ____ = 9

9.) Draw a line to Match the step number of the Make Ten Subtract the factor.

Think of 9 as 10 – 1. ●	● Step 3
Multiply 10 and the other factor. ●	● Step 1
Subtract the other factor. ●	● Step 2

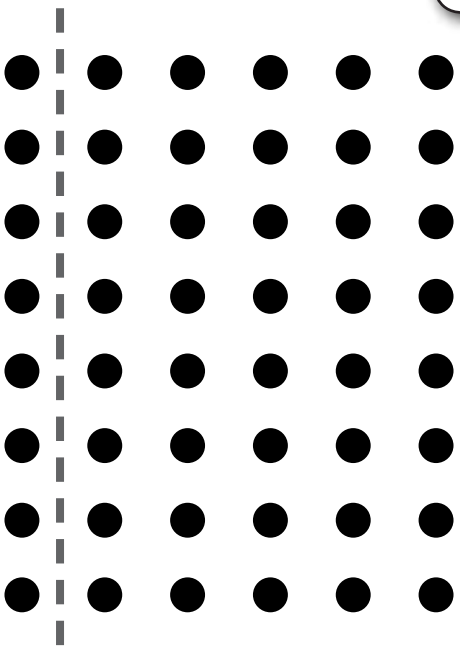
10.) Kaylee wrote that 9 × 9 = 90. What step did Kaylee forget to do in solving 9 × 9 ?

A None, that is the correct answer.

B She forgot to subtract the factor.

C She didn't think of 9 as 10 – 1.

D She didn't multiply 9 to 10.



6 × 8

(☐ × _____) + (☐ × _____)

_____ + _____ = _____

6 × 8 = _____

Number family: _____, _____, _____

_____ × _____ = _____

_____ ÷ _____ = _____

_____ ÷ _____ = _____

6 × 6

(☐ × _____) + (☐ × _____)

_____ + _____ = _____

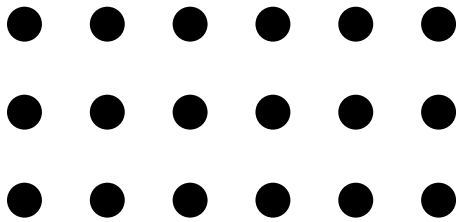
_____ = 6 × 6

Number family: _____, _____, _____

_____ ÷ _____ = _____

Step 1.) Break apart 6 into _____ and _____

Draw a line to show how to break apart 6



Step 2.) Multiply 1 and 5 by the other factor.

6×3

$(1 \times \_\_\_\_\_) + (5 \times \_\_\_\_\_)$

Step 3.) Add the products.

6×3

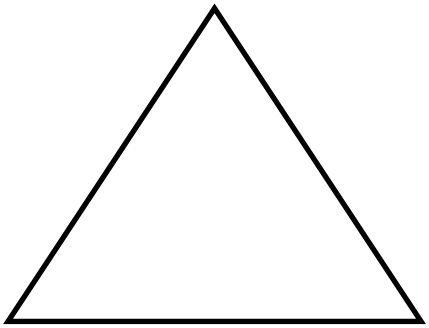
$(1 \times 3) + (5 \times 3)$

_____ + _____

$6 \times 3 =$ _____

Read and solve.

1.) The basketballs were organized on shelves in the gym. Each shelf held 4 balls. There were 6 total shelves. How many basketballs were in the gym?



____ × ____

(□ × ____) + (□ × ____)

____ + ____

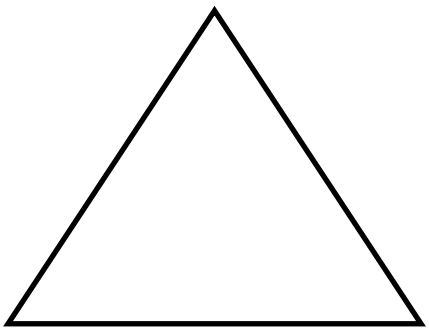
____

____ × ____ = ____

____ ÷ ____ = ____

____ ÷ ____ = ____

2.) Jill was excited for vacation. She packed 6 boxes of towels for her family. Each box had 7 towels. How many towels did she pack?



____ × ____

(□ × ____) + (□ × ____)

____ + ____

____

____ × ____ = ____

____ ÷ ____ = ____

____ ÷ ____ = ____

3.) Match the fact with the strategy or property by drawing a line.

8 × 0 ●	● Skip count by 2s
12 × 1 ●	● Identity Property
7 × 9 ●	● Make Ten Subtract the Factor
7 × 2 ●	● Skip count by 5s
10 × 8 ●	● Break apart 6
4 × 5 ●	● Zero Property
6 × 3 ●	● Skip count by 10s

Solve each problem.

1.) 9 × 9 = ____

2.) 3 × 10 = ____

3.) 5 × 6 = ____

4.) ____ = 2 × 7

5.) 6 × 8

(☐ × 8) + (☐ × 8)

____ + ____

____

6.) 3 × 6

(☐ × ____) + (☐ × ____)

____ + ____

____

7.) 6 × 4

(☐ × ____) + (☐ × ____)

____ + ____

____

8.) 7 × 6

(☐ × 7) + (☐ × 7)

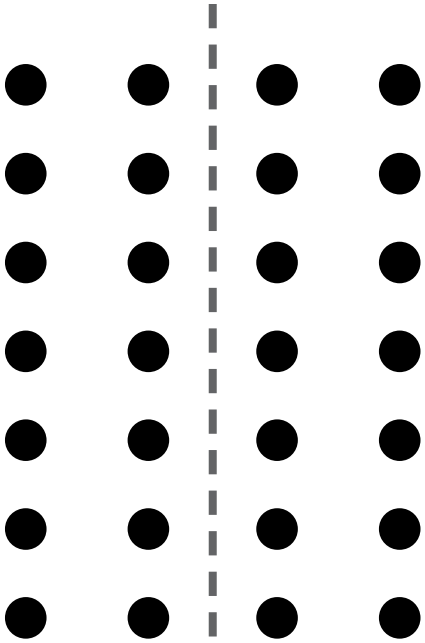
____ + ____

____

9.) Marcus sold 6 pies at the fundraiser. Each pie costs $6. How much money did Marcus make?

A $30 **B** $32 **C** $12 **D** $36

STOP



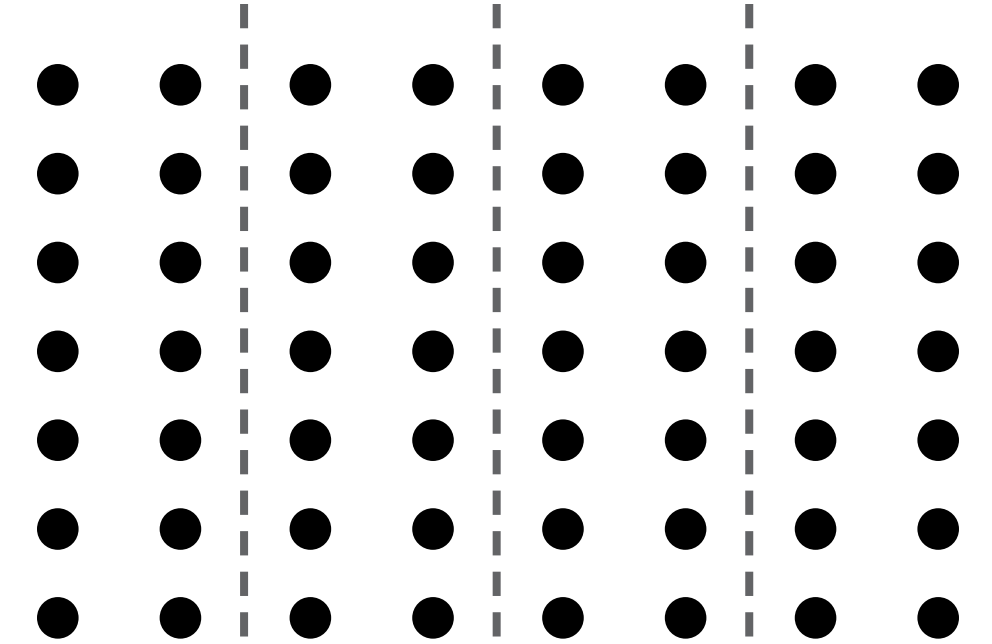
___ × ___ ___ × ___

_____ + _____

_____ = 4 × 7

Number family: _____, _____, _____

_____ ÷ _____ = _____



___ × ___ ___ × ___ ___ × ___ ___ × ___

_____ + _____ + _____ + _____

_____ + _____

_____ = 8 × 7

Number family: _____, _____, _____

_____ ÷ _____ = _____

4s

Step 1.) Double the other factor.

Circle the other factor. 4 × 8

Step 2.) Double it again.

Write the doubles fact. _____ + _____

What is the sum? _____

So 4 × 8 _____

8s

Step 1.) Double the other factor.

Circle the other factor. 8 × 3

Step 2.) Double it again.

Write the doubles facts. _____ + _____ + _____ + _____

Write the doubles fact. _____ + _____

Step 3.) Double it last time.

What is the sum? _____

So 8 × 3 _____

Read each problem and solve.

1.) Matthew has 4 friends and wants to give each friend 3 notebooks. How many notebooks does Matthew need in all?

4 × ____

____ + ____

____ = 4 × ____

2.) New art materials come in 8 boxes of 8 brushes. How many brushes will the art class have?

____ × 8

____ + ____ + ____ + ____

____ + ____

____ = 8 × ____

3.) 4 × 8

____ + ____

4 × 8 = ____

4.) 8 × 7

____ + ____ + ____ + ____

____ + ____

____ = 8 × 7

Solve each problem.

1.) _____ = 6 × 3

2.) 9 × 4 = _____

3.)
$$\begin{array}{r} 5 \\ \times\ 2 \\ \hline \end{array}$$

4.) 12 × 1 = _____

5.) 8 × 3 = ☐

_____ + _____ + _____ + _____

_____ + _____

6.) 7 × 4 = ☐

_____ + _____

_____

7.) 4 × 3 = ☐

_____ + _____

_____

8.) 8 × 8 = ☐

_____ + _____ + _____ + _____

_____ + _____

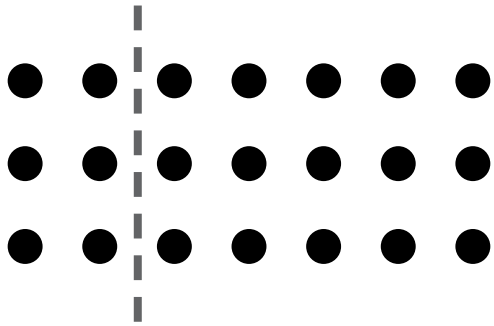
9.) Circle the letter that shows Courtney correctly solved 4 × 8.

A 4 × 8 = 12

B 8 + 8 = 16 so 4 × 8 = 16

C 16 + 16 = 32 so 4 × 8 = 32

D 4 + 4 + 4 + 4 = 16 so 4 × 8 = 16



___ × ___ ___ × ___

(☐ × _____) + (☐ × _____)

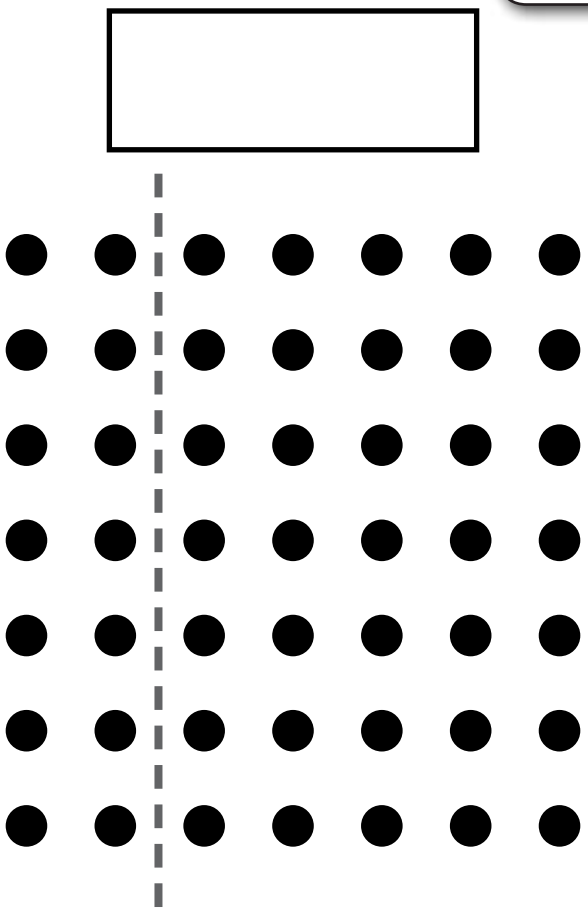
_____ + _____

_____ = 7 × 3

Number family: _____, _____, _____

_____ ÷ _____ = _____

_____ ÷ _____ = _____



___ × ___ ___ × ___

(☐ × _____) + (☐ × _____)

_____ + _____

_____ = 7 × 7

Number family: _____, _____, _____

_____ ÷ _____ = _____

7s

Step 1.) Break apart 7 into 5 and 2.

Step 2.) Multiply 5 and 2 by the other factor.

Step 3.) Add the products.

7×4

$(\square \times \_\_\_\_) + (\square \times \_\_\_\_)$

$\_\_\_\_ + \_\_\_\_$

$\_\_\_\_ = 7 \times 4$

6×7

$(\square \times \_\_\_\_) + (\square \times \_\_\_\_)$

$\_\_\_\_ + \_\_\_\_$

$\_\_\_\_ = 6 \times 7$

Read each problem and solve.

1.) Tomas has 7 jars. Each jar contains 7 insects. How many insects are there?

7 × _____

(☐ × _____) + (☐ × _____)

_____ + _____

_____ insects

2.) Sofia earns $8 a day for pet sitting. She worked a total of 7 days. How much money did Sophia earn?

_____ × 7

(☐ × _____) + (☐ × _____)

_____ + _____

$ _____

1.) ____ = 10 × 4

2.)
$$\begin{array}{r} 6 \\ \times\ 6 \\ \hline \end{array}$$

3.)
$$\begin{array}{r} 9 \\ \times\ 6 \\ \hline \end{array}$$

4.) 8 × 7 = ☐

____ + ____ + ____ + ____

____ + ____

8 × 7 = ____

5.) 4 × 8 = ☐

____ + ____

4 × 8 = ____

6.) 3 × 7

(☐ × ____) + (☐ × ____)

____ + ____

____ = 3 × 7

7.) Joshua sold 7 of his baseball cards for $4 each. How much money did Joshua get for his baseball cards?

A $35 **B** $11 **C** $28 **D** $21

8.) 4 × 7

(☐ × _____) + (☐ × _____)

_____ + _____

_____ = 4 × 7

9.) 7 × 7

(☐ × _____) + (☐ × _____)

_____ + _____

_____ = 7 × 7