Name _____ Number _____

Partner Work

Solve these equations:

2 x 5 = ☐	7 x 2 = ☐	12 x 2 = ☐	2 x 6 = ☐
8 x 2 = ☐	9 x 2 = ☐	2 x 2 = ☐	10 x 2 = ☐

Mr. Haktak wanted a special gift for his wife. He picked 6 roses from his garden and placed them in the pot. How many roses did he have to give to Mrs. Haktak? Write an equation using ☐ for the unknown number and then solve.

Equation: _____

Answer: _____

Challenge Equations:

4 x ☐ = 8	2 x ☐ = 22	☐ x 1 = 2

Independent Work

Solve these equations:

2 x 3 = ☐	2 x 7 = ☐	4 x 2 = ☐	2 x 9 = ☐
11 x 2 = ☐	5 x 2 = ☐	2 x 12 = ☐	2 x 8 = ☐

Brandon ate 2 pieces of pizza each night for one full week. How will you determine how many of pieces of pizza Brandon ate for the week?

Write an equation using ☐ for the unknown number and then solve.

Challenge Equations:

6 x ☐ = 12	2 x ☐ = 10	☐ x 2 = 4

Name _____ Number _____

Dividing by 2 (Partner Work)

Dividend	Divisor	Number Sentence	Quotient
10	2		
4	2		
20	2		
2	2		
8	2		
12	2		
100	2		

Kelli has 18 eggs. She needs to put the same number of eggs into 2 cartons. How many eggs will she place into each carton?
Write an equation for the problem using this symbol ☐ for the unknown and then solve.

Equation: _____
Answer: _____

Dividing by 2 (Individual Work)

Dividend	Divisor	Number Sentence	Quotient
6	2		
14	2		
24	2		
2	2		
18	2		
40	2		
16	2		

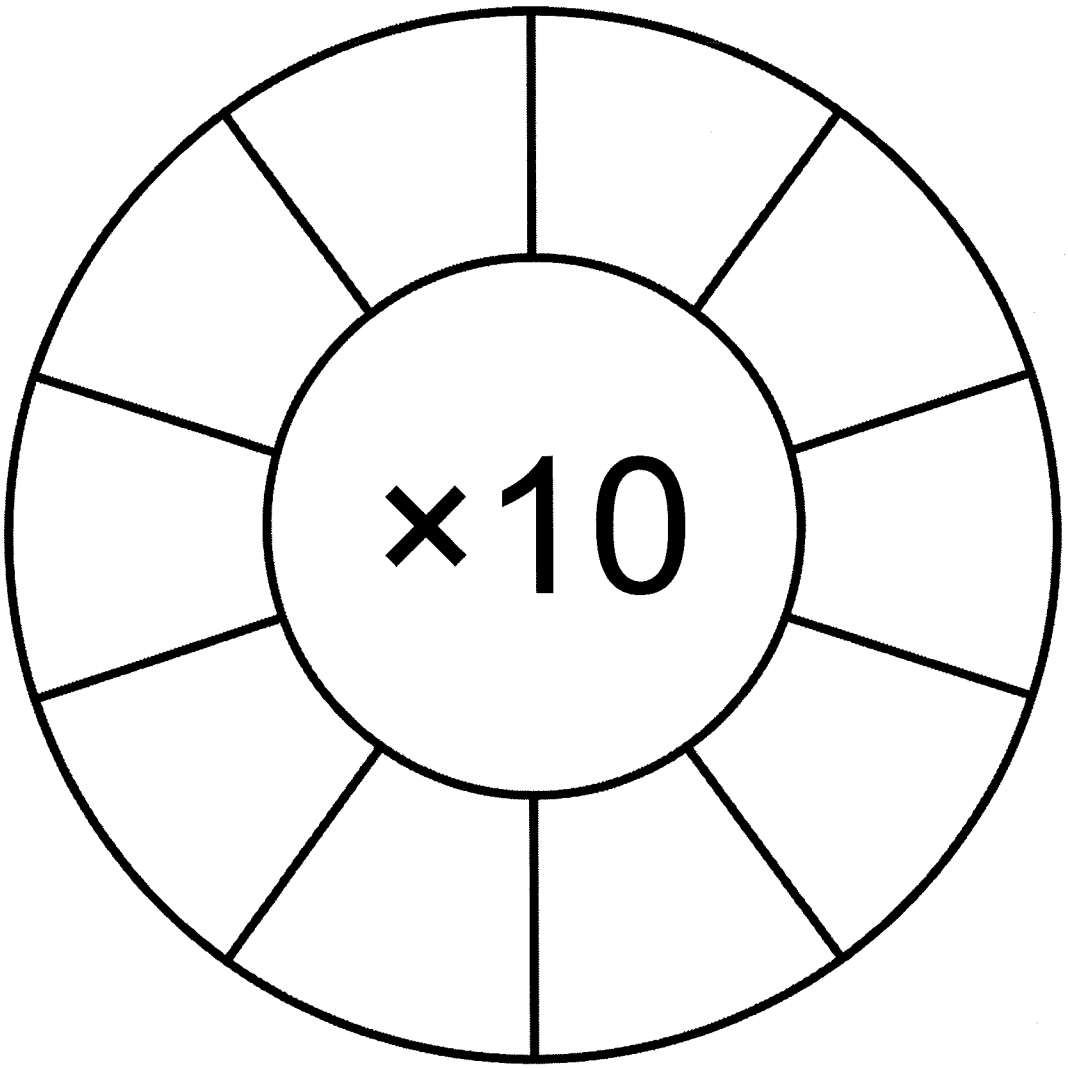
There are 12 students wanting to ride the roller coaster. Each car seats 2 people. How many cars are needed so that all 12 students can ride the roller coaster at the same time?
Write an equation for the problem using this symbol ☐ for the unknown and then solve.

Equation: _____
Answer: _____

Name _____ Number _____

Math Facts Ring

Record each number 1–10 in a section of the ring, then multiply each number by 10 and record the product outside each ring section.



There are 10 students in Mrs. Brown's class. Because they all followed the group plans for the whole day, each student will receive 6 Skittles. How many Skittles will Mrs. Brown give to the students in all?
Write an equation using ☐ for the unknown number and then solve.

Equation: _____

Answer: _____

Name:

Dimes and Cents

Complete the In/Out chart to show the number of dimes and the amount of money for each group of dimes. Draw a picture to show one of the rows.

Number of Dimes	Cents
1	
	20¢
4	
	80¢

Tell about the patterns you see in the Dimes and Cents chart above.

How can you tell the total amount if you have 7 dimes?

Name:_____

Math Facts Column

Complete the table with the missing products.

n	$n \times 5 =$
2	
4	
7	
10	
3	
6	
9	
5	
8	
1	

Jessie is thinking of a number that is a multiple of 5. Which of the following could be Jessie's number? Choose all that apply.

_____ 45
_____ 30
_____ 22
_____ 5
_____ 70

Name:_____

Math Facts Column

Complete the table with the missing products.

n	$n \times 5 =$
2	
4	
7	
10	
3	
6	
9	
5	
8	
1	

Jessie is thinking of a number that is a multiple of 5. Which of the following could be Jessie's number? Choose all that apply.

_____ 45
_____ 30
_____ 22
_____ 5
_____ 70

Name:

Math Facts Column

Complete the table with the missing quotients.

n	$n \div 5$
5	
10	
15	
20	
25	
30	
35	
40	
45	
50	

Ms. Harris bought 20 new books for the book club. She wants to create a display for the new books. Can Ms. Harris create a display with 5 rows? Explain.

Name _____ Number ____

Independent Problem-Solving Cards

Write an equation using a symbol to represent the unknown number. Show your strategies.

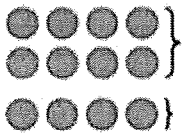
Problem #1 *Deryn has 5 bags of cookies. There are 4 cookies in each bag. How many cookies does she have?*	**Problem #2** *Oscar reads for 30 minutes last week. How many days did he read last week if he read 10 minutes each night?*
Problem #3 *Evie earned 5 dollars for every lawn that she mowed. Evie made $35 mowing lawns. How many lawns did she mow?*	**Problem #4** *Megan has 3 shelves in her room with 5 stuffed animals on each. How many stuffed animals does she have?*
Problem #5 *Meg's mom puts 5 cupcakes on each plate. She has 8 plates for a party. How many cupcakes does she have for the party?*	**Problem #6** *Jan bought 45 stickers. There were 5 stickers in each package. How many packages did Jan buy?*
Problem #7 *Colleen has 4 nickels in her piggy bank. How much money does she have?*	**Problem #8** *Kris has a photo album. It has 8 blue pages with 5 photos on each page, and 5 red pages with 6 photos on each page. How many photos are in her album?*

Multiplying by 3 Independent Work

Name _____ Number ____

Use your Doubles Plus One strategy to solve problems 1-7.

1) 3×4

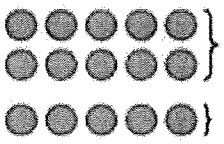


$2 \times 4 =$ ____

$1 \times 4 =$ ____

$8 + 4 =$ ____

2) 3×5



$2 \times 5 =$ ____

$1 \times 5 =$ ____

$10 + 5 =$ ____

3-7)

9 x 3 = ___	8 x 3 = ___	5 x 3 = ___	3 x 7 = ___	3 x 6 = ___

Solve the equations below using any known strategy.

8-12)

2 x 3 = ___	10 x 3 = ___	0 x 3 = ___	3 x 1 = ___	3 x 3 = ___

13) Allison bought 10 packages of energy bars. Each package contains 3 bars. Allison says she has a total of 35 energy bars. Is her answer reasonable? Why or why not?

_____

_____

14) What 2 multiplication facts can help you solve 3 x 9? _____and_____

15) How could you use 3 x 9 to find 9 x 3? _____

_____

Dividing by 3 Independent Work

Name _____ Number _____

1) Which of the following are in the fact family for 8, 3, and 24?

- ☐ 3 x 8 = 24
- ☐ 3 + 8 = 24
- ☐ 24 ÷ 8 = 3
- ☐ 24 – 8 = 3
- ☐ 8 x 3 = 24

2) Mr. Mathews bought 18 microscope lenses for the biology lab. There are 3 lenses in each package. How many packages did he buy?

- Ⓐ 5 packages
- Ⓑ 3 packages
- Ⓒ 6 packages
- Ⓓ 9 packages

Use your knowledge of inverse operation to solve each quotient.

3) 21 ÷ 3 = ___ 4) 28 ÷ 3 = ___ 5) 12 ÷ 3 = ___ 6) 30 ÷ 3 = ___

7) Ellie has 45 photographs to place in a photo album. She wants to place 5 photos on each page. How many pages does she use?
Use a division equation to help you divide.
Write an equation for the unknown using a ☐ for the unknown number and then solve.

Equation: _____
Answer: _____

8) Which is NOT in the fact family for 3, 4, and 12?

- Ⓐ 4 ÷ 12 = 3
- Ⓑ 4 x 3 = 12
- Ⓒ 12 ÷ 4 = 3
- Ⓓ 12 ÷ 3 = 4

9) Tom says that 24 ÷ 8 = 3 is the inverse of 24 ÷ 3 = 8. Is Tom correct? ____
Why or why not?

_____
_____
_____
_____

Name:

There's Always Another Way

We have practiced multiplying by 6. Some facts can be harder to figure out than others, but there is always another way to think about the fact. Find the products of 6 by decomposing 6 into different groups.

6 × 4 is the same as	6 × 4 is the same as
6 × 7 is the same as	6 × 7 is the same as
6 × 6 is the same as	6 × 6 is the same as

If you get stuck multiplying by 6, you could break the 6 into a 5 and 1. Why would 5 and 1 be a good choice?

Dividing by 6 Independent Work

Name _____ Number _____

1) Which of the following are in the fact family for 6, 7, and 42?

- ☐ 42 = 6 x 7
- ☐ 6 + 7 = 42
- ☐ 42 – 6 = 7
- ☐ 42 ÷ 7 = 6
- ☐ 7 = 42 ÷ 6

2) We need 48 juice boxes for our class party. The juice boxes come in packs of 6. How many packs do we need to buy to have enough for each student?

3) Ms. Jones buys 54 new batteries. Each calculator needs 5 batteries plus 1 for back up. How many calculators get new batteries? Show your work.

Use your knowledge of inverse operation to solve each quotient.

4) 48 ÷ 6 = ___ 5) 18 ÷ 6 = ___ 6) 24 ÷ 6 = ___ 7) 36 ÷ 6 = ___

8) Elsa collects stamps. She has 30 stamps to place in her stamp album. She puts 6 stamps on each page. How many pages of stamps will Elsa fill up?
Use a division equation to help you divide.
Write an equation for the unknown using a ☐ for the unknown number and then solve.

Equation: _____
Answer: _____

9) Which is NOT in the fact family for 6, 2, and 12?

Ⓐ 12 ÷ 2 = 6
Ⓑ 2 x 6 = 12
Ⓒ 12 ÷ 6 = 2
Ⓓ 6 x 12 = 2

10) Megan says that 48 ÷ 6 = 8 is the inverse of 48 ÷ 8 = 6. Is Megan correct? ____
Why or why not?

_____
_____
_____
_____

Multiplying by 9 Independent Work

Name _____ Number _____

1-6) Solve the equations below using any known strategy from today and show your work.

3 x 9 = _____	9 x 9 = _____	9 x 4 = _____	7 x 9 = _____	9 x 5 = _____

7) Mario puts 4 paper airplanes into each of 9 gift bags. How many paper airplanes does Mario use?

Ⓐ 27 paper airplanes
Ⓑ 36 paper airplanes
Ⓒ 45 paper airplanes
Ⓓ 54 paper airplanes

8) Paula's hair was put into 9 braids. Each Braid used 6 beads. How many beads were used? Explain how you found the product. _____

_____

_____

_____

_____

9) Sasha says if she knows the product of 9 x 8, she also knows the product of 8 x 9. Is Sasha correct? Why or why not? _____

_____

10) Which numbers are factors of 45? Choose all that apply.

____ × ____ = 45

☐ 4
☐ 5
☐ 6
☐ 8
☐ 9

11) Which numbers are factors of 18? Choose all that apply.

____ × ____ = 18

☐ 2
☐ 3
☐ 6
☐ 8
☐ 9

Name _____ Number ____

Independent Work/Exit Ticket

Multiplication Fact	Inverse Operation
10 x 9 = 90	
3 x 9 = 27	
12 x 9 = 108	
5 x 9 = ___	
2 x 9 = ___	
9 x 9 = ___	

9 girls need to run a total distance of 18 miles in a relay race. How far will each girl need to run so that each runs an equal distance? Write an equation to help you solve this problem using ☐ for the unknown quotient and then solve.

Equation: _____

Quotient: _____

Multiplying by 4 Independent Work

Name _____ Number _____

1-6) Solve the equations below using any known strategy and show your work.

4 x 6 = ___	8 x 4 = ___	___ = 4 x 4	4 x 7 = ___	5 x 4 = ___	___ = 9 x 4

7) How can you use 2 x 6 to solve 4 x 6?

_____

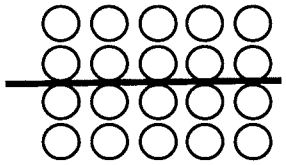
_____

_____

_____

8) Which expression can be used to determine the total number of circles?

A. 4 + 5
B. (4 x 4) + 1
C. (2 x 5) + (2 x 5)
D. (2 + 5) x (2 + 5)



9) Mrs. Forman works seven 4-hour shifts each week. How many hours does she work each week? Write an equation using a symbol for the unknown number and then solve.

Equation: _____
Answer: _____

10) Mr. Woo made fliers for 4 students to hand out. Each student took 7 fliers. How many fliers did Mr. Woo make?

Ⓐ 36
Ⓑ 24
Ⓒ 28
Ⓓ 14

11) Which of these numbers are multiples of 4?

- ☐ 8
- ☐ 35
- ☐ 12
- ☐ 4
- ☐ 16
- ☐ 18
- ☐ 28
- ☐ 14

12) Mandy sees 3 cows in a pen. How many legs does she see? Write an equation using a symbol for the unknown and solve.

Equation: _____
Answer: _____

13) Which numbers are factors of 24?

- ☐ 6
- ☐ 9
- ☐ 4
- ☐ 3

14) If 4 x 9 = 36 then 9 x 4 = ☐
Explain how you know this to be true?

_____

_____

_____

_____

Dividing by 4 Independent Work

Name _____ Number _____

1-6) Solve the equations below using any known strategy and show your work.

20 ÷ 4 = ___	32 ÷ 4 = ___	16 ÷ 4 = ___	28 ÷ 4 = ___	24 ÷ 4 = ___	36 ÷ 4 = ___

7) How can you use 4 x 6 = 24 to find 24 ÷ 4?

_____

_____

_____

_____

8) Mrs. Sorensen divides the class into 4 groups. There are 28 students in the class. How many students are in each group? Write an equation using a symbol for the unknown and solve.

Equation: _____

Answer: _____

9) Lynn has 12 stickers she wants to place on 4 model cars. How can she divide the stickers into 4 equal groups with none left over?

Ⓐ Put 2 stickers on each model car.
Ⓑ Put 3 stickers on each model car.
Ⓒ Put 4 stickers on each model car.
Ⓓ Put 5 stickers on each model car.

10) Write a division equation where 8 is the quotient and 4 is the divisor.

_____

11) Which of the following are in the fact family for 4, 8, and 32?

☐ 8 ÷ 4 = 32
☐ 4 x 8 = 32
☐ 32 ÷ 8 = 4
☐ 32 – 8 = 4
☐ 32 = 8 x 4

12) Mr. David has 20 rolls of paper towels. He wants to arrange an equal number of paper towels on four shelves. How many rolls of paper towels will he place on each shelf?
Write an equation using a symbol for the unknown and solve.

Equation: _____

Answer: _____

13) Mrs. Miller loves peanut butter cookies. She has $16. The cookies come in boxes that cost $4. What's the greatest number of boxes Mrs. Miller can buy? Show your work.

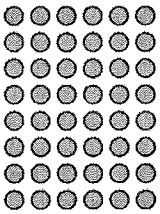
Multiplying by 8 Independent Work

Name _____ Number _____

1-6) Solve the equations below using any known strategy and show your work.

2 x 8 = _____	8 x 9 = _____	8 x 4 = _____	_____ = 7 x 8	8 x 5 = _____

7) We can solve 8 x 6 by partitioning this larger array into two smaller arrays. Demonstrate how this is possible. Show **ALL** your work.



8) Fill in this equation to match your array and solve.

8 x 6 = (___ x ___) + (___ x ___)

Answer: _____

9) Put a √ in the **Yes** or **No** box to indicate which numbers are multiples of 8?

Multiple	Yes	No
64		
24		
18		
28		
48		

11) Explain how you can use the multiplication fact 2 x 8 to solve 8 x 4.

_____

_____

_____

_____

12) Write a multiplication equation where 8 is a factor and 56 is the product.

_____

13) Jill says that 8 x 2 = 2 x 8. Is Jill correct? Explain how you know?

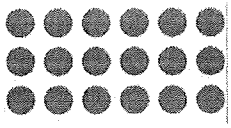
_____

_____

_____

_____

10) Mrs. Bowman keeps her coins organized in an array. Draw a different array using the same number of coins but with 2 **DIFFERENT** FACTORS. Then write multiplication equations for each array.



Equation: _____

Equation: _____

Divide by 8 Independent Work

Name _____ Number _____

1-5) Solve the equations below using any known strategy and show your work.

16 ÷ 8 = ____	40 ÷ 8 = ____	____ = 80 ÷ 8	64 ÷ 8 = ____	____ = 48 ÷ 8

6) A 32-inch rope is cut into 8 pieces. Jack says you can find the length of each piece by finding 32 ÷ 8. Which of these statements describes Jack's claim?

A. Jack's claim is false. He should add 4 and 20 instead.
B. Jack's claim is false. He should multiply 32 and 8 instead.
C. Jack's claim is true if you assume that the pieces are all equal in length.
D. Jack's claim is true if you assume that each piece is 8 inches long.

7) Select all the ways you can divide 8 objects into equal groups with none left over.

- ☐ 2 groups
- ☐ 3 groups
- ☐ 4 groups
- ☐ 5 groups
- ☐ 6 groups

8) What number makes both equations true?

56 ÷ 8 = ____ 8 x ____ = 56

Answer: _____

9) Which of these numbers are multiples of 8?

48	64	30	24
16	25	80	28

10) Which situation can be solved using the expression 72 ÷ 8?

A. finding the number of shirts when there are 8 groups of 72 shirts
B. finding the number of dresses when 72 dresses are placed on a rack with 8 more dresses
C. finding the number of jackets left over when 8 out of 72 jackets are sold
D. finding number of skirts on each rack when a total of 72 skirts are placed equally on 8 racks

11) Hannah arranges 48 magazines into 8 equal piles. Which of these expressions will help you determine how many magazines Hannah has in each pile?

- ☐ 48 + 8
- ☐ 48 ÷ 8
- ☐ 8 x 48
- ☐ 8 ÷ 48

12) Miss Potts used a total of 24 cups of flour to bake some bread. She used 4 cups of flour for each loaf of bread. How many loaves of bread did she bake? Represent the problem using a multiplication and division equation and a symbol for the unknown and solve.

Multiplication Equation: _____
Division Equation: _____
Answer: _____

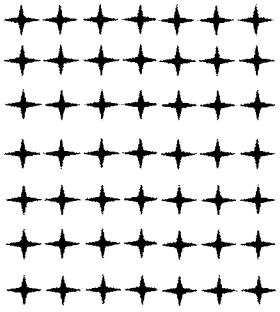
Multiplying by 7 Independent Work / Exit Ticket

Name _____ Number _____

1-4) Solve the equations below and show your strategy.

7 x 8 = ____	____ = 7 x 3	7 x 5 = ____	____ = 7 x 9

5) Partition this array to solve 7 x 7 = ____.
Show **ALL** your work.

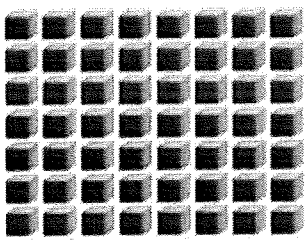


Answer: _____

6) I am a multiple of 7.
I am greater than 14.
My other factor is 3.
Who am I?

_____

7) Samantha solves 7 x 8 by adding 40 + 16. Using the array below, show how Samantha was able to solve 7 x 8 using this strategy and then solve.



Answer: _____

8) Molly says she can count by seven 6 times to solve 7 × 6. James says he can count by six 7 times to solve this problem. Who is right? Explain your answer.

_____
_____
_____
_____

9) Robert says that he can solve 6 × 8 by thinking of it as 5 x 8 plus one more group of 8 or (5 × 8) + 8. Is he right? Explain your answer.

_____
_____
_____
_____

10) Malia solves 6 × 7 using (5 × 7) + 7. Linda solves 6 × 7 using (6 × 5) + (6 × 2). Who is correct? Draw a picture to help explain your answer.

Answer: _____

Dividing by 7 Independent Work/Exit Ticket

Name _____ Number _____

1-4) Solve the equations using any known strategy.

Equation	Strategy
28 ÷ 7 = ____	
____ = 63 ÷ 7	
49 ÷ 7 = ____	
56 ÷ 7 = ____	

5) Jordan has 7 canisters of tennis balls. Each canister has the same number of balls inside. There are 21 balls altogether.

Part A: Write an equation to find the number of balls in each canister. Use a symbol to represent the number of balls in each canister. _____

Part B: How many balls are in each canister? _____

6) Mr. and Mrs. Craig shared a limousine ride with 5 of their friends. The cost of the limousine was $42. If each person shared the cost equally, how much did each person pay to ride in the limousine?

Write a division and multiplication equation using a symbol for the unknown and then solve.

Division Equation: _____

Multiplication Equation: _____

Answer: _____