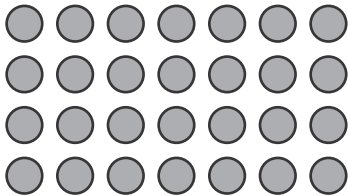


Name \_\_\_\_\_

1. **A.** Tyrone wrote a multiplication fact and a division fact for the array below. Select all of the equations that show a fact Tyrone could have written.



- $4 \times 6 = 24$   
  $7 \times 4 = 28$   
  $28 \div 4 = 7$   
  $8 \times 4 = 32$   
  $32 \div 4 = 8$

- B.** Look at the multiplication fact you selected in **Part A**. Which of these is a way to rewrite the product in it?

- (A)  $(4 \times 3) + (4 \times 4)$   
 (B)  $(4 \times 4) + (4 \times 2)$   
 (C)  $(4 \times 2) + (4 \times 8)$   
 (D)  $4 \times 4 \times 7$

2. Corey wrote three equations. What number will make all of Corey's equations true?

$? \times 9 = 54$

$42 \div 7 = ?$

$48 \div ? = 8$

3. If a group of objects is divided into 2 equal groups, none are left over. Is the total number of objects even or odd? What could the total number of objects be? Use a drawing to explain.

4. Mrs. Jefferson wrote the expression  $7 \times 3$  on the board. Which of the following expressions has the same value?

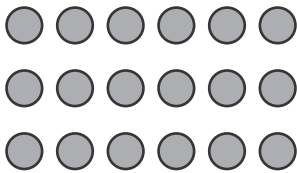
- (A)  $(3 \times 3) + (3 \times 2)$   
 (B)  $(7 \times 2) + (7 \times 1)$   
 (C)  $(7 \times 0) + (7 \times 4)$   
 (D)  $(4 \times 3) + (4 \times 3)$

5. **A.** Levi is buying used books. He buys 5 hardcover books and 2 paperback books. He spends \$28. If the books are all the same price, how much does each book cost?

- B.** Levi decides to buy more books that cost another \$16 in all. How many more books does Levi buy?

6. Look at the counters below.

- A.** Draw lines around the counters to show  $18 \div 6$ .



- B.** Write a multiplication fact related to the drawing you completed in **Part A**.

7. Match each expression on the left with an equivalent expression.

	$8 \div 8$	$6 \times 0$	$7 \times 1$	$1 \times 6$
$0 \div 8$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$36 \div 6$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$4 \div 4$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$35 \div 5$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

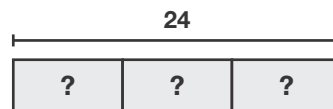
8. **A.** Sam wrote five numbers. Which of Sam's numbers can be divided into 6 equal groups with 0 left over? Select all that apply.

- 60       48       32  
 54       27

- B.** How can you check to make sure the numbers you chose are divisible by 6?

- (A) Check that each number is even.  
 (B) Check that each number is odd.  
 (C) Use multiplication to multiply 0 by a number to determine if it is equal to the number you chose.  
 (D) Use multiplication to multiply 6 by a number to determine if it is equal to the number you chose.

9. Lizzie drew this bar diagram to model a division problem. Write a multiplication equation Lizzie could use to help solve the problem.



- 10. A.** Jerome divided his baseball card collection into 2 equal groups. Which describes the number of baseball cards Jerome has?
- (A) It is an even number.
  - (B) It is an odd number.
  - (C) It is neither an odd or even number.
  - (D) It is both an odd and even number.

**B.** Jerome finds 2 more baseball cards. Select all statements that are true.

- Including the baseball cards he found, Jerome has an even number of baseball cards.
- Jerome has an odd number of baseball cards.
- Jerome can divide all of the baseball cards into 2 equal groups.
- Jerome could now have a total of 6 baseball cards in his collection.
- Jerome could now have a total of 8 baseball cards in his collection.

- 11.** Taylor is trying to find  $8 \div 1$ . She says the answer is 1 because  $8 \times 1 = 1$ . Is Taylor correct? Explain.

- 12.** Carlos has 49 pencil toppers. He sorts his pencil toppers into 7 equal groups.

**A.** Write an expression that represents how many pencil toppers are in each group.

**B.** How many are in each group?

- 13.** On her trip, Cybil sent 56 postcards. She sent the same number of postcards to each of 8 friends. How many postcards did Cybil send to each friend? Use the bar diagram to help.



- (A) 6
- (B) 7
- (C) 8
- (D) 9

- 14.** Angela has 5 classes. For each class, she needs 2 folders. Find how many folders she needs in all. Then write the fact family related to this situation.

15. **A.** Richard wrote 3 true statements about even and odd numbers. Select all of the true statements.

- An even number times an odd number has an odd product.
- All even numbers are multiples of 2.
- The product of 5 and any number is always odd.
- The product of two even numbers is even.
- An odd number cannot be divided by 2 with none left over.

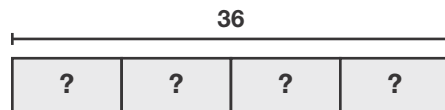
**B.** Look at the statements you did **NOT** select in **Part A**. For each, give an example of why it is not true.

16. Which number makes both equations true?

$$27 \div 9 = ? \qquad 9 \times ? = 27$$

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17. Anna drew the bar diagram below. Write two equations that could be used to represent the problem shown in Anna's bar diagram. Then solve the equations.



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18. Miriam has 3 packages of pencils. Each package has 6 pencils. She needs an eraser for each pencil. How many erasers will she need to buy?

Tell which operations you will use. Then solve the problem.