Third Grade
Answer Key
Unit 3: Multiplication & Division

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Problem of the Day

Lesson 1

John has 126 toy train cars. For his birthday, he received 37 more toy train cars. How many toy train cars does John have now?

Answer: _____**163**_____

Lesson 2

Marty has 145 pages in her book to read. If she has already read 96 pages, how many pages does Marty have left to read before she finishes her book?
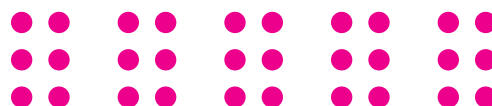
Answer: _____**49**_____

Lesson 3

Model the problem below by drawing equal groups.

$$5 \times 6 = \underline{\quad 30 \quad}$$

Sample answer:
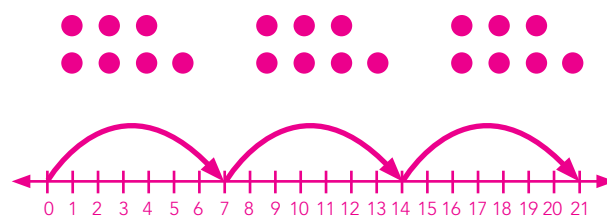
Lesson 4

Model the problem below by using the number line.

$$9 \times 2 = \underline{\quad 18 \quad}$$

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Lesson 5

Model the problem below by drawing an array AND area model.

$$3 \times 7 = \underline{\quad 21 \quad}$$

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

Problem of the Day

Lesson 6

Apply the Commutative Property of Multiplication to this equation and solve.

$$5 \times 7 = ?$$

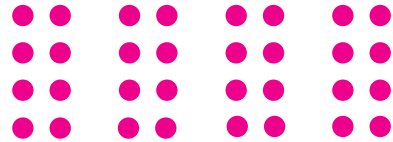Commutative Property: <u>5 × 7 = 7 × 5</u>
Answer: <u>35</u>

Lesson 7

Andrew has 12 boxes of cookies. If each box of cookies contains 6 cookies, how many cookies does Andrew have in all? Model by drawing equal groups and solve.

Answer: <u>72 cookies</u>

Lesson 8

Diana has 4 barrels of apples. If each barrel has 10 apples, what is the total number of apples that Diana has? Draw a number line to model and solve.

Answer: <u>40 apples</u>

Lesson 9

Mark has 32 pies. If he wants to split the pies into 4 equal groups, how many pies would be in each group? Solve this problem by drawing equal groups and record your answer.

Answer: <u>8 pies</u>

Lesson 10

Brady wants to split his car collection into 5 groups. If he has 40 cars in all, how many cars would be in each group? Model the problem by creating a number line to find the answer.

Answer: <u>8 cars</u>

Problem of the Day

Lesson 11
Kenzie has 15 animal figures. She wants to split the animals into equal groups of 3. How many groups can Kenzie make? Model repeated subtraction to solve the problem.

Answer: **5 groups**

Lesson 13
Gina has 6 oranges to split with a friend. How many oranges will each girl receive? Draw an array or area model to solve for an answer.

Answer: **3 oranges**

Lesson 12
Examine the equation below. Draw a fact family house and fill it in.

$$3 \times 8 = 24$$
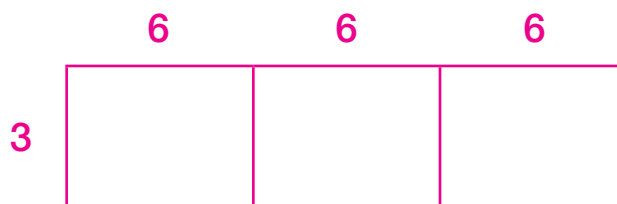
8 × 3 = 24
24 ÷ 3 = 8
24 ÷ 8 = 3

Lesson 14
Solve 9 × 3 using equal groups.
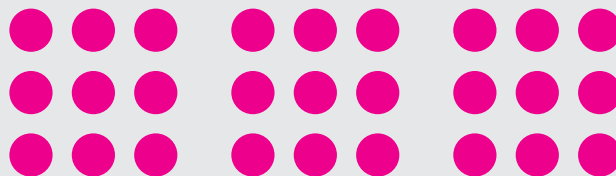
Lesson 15
Solve 18 ÷ 3 using an area model.

6   6   6

3

Problem of the Day

Lesson 16

Quinn has 4 pails of bananas. If each pail contains 6 bananas, how many bananas does Quinn have in all? Draw a strip diagram and solve.

24 bananas

6	6	6	6

Lesson 17

Examine the equation below. Draw a fact family house and fill it in.

$$16 \div 2 = 8$$

16 ÷ 8 = 2
2 × 8 = 16
8 × 2 = 16

Lesson 18

Tony has 18 barrels of hay. If he wants to split the barrels into 2 equal groups, how many barrels of hay will be in each group? Draw a strip diagram and solve.

9 barrels

9	9

Lesson 19

Megan has 12 pairs of shoes. If each pair has 2 shoes, how many total shoes does Megan have in all?

What do you have?
# of groups:
in each group:
Total:
Type of strip diagram:

Draw the strip diagram and solve:

24 shoes

2	2	2	2	2	2	2	2	2	2	2	2

Lesson 20

Steve has 25 basketballs. If Steve can fit 5 basketballs in each bucket, how many buckets will Steve need to put all the basketballs up?

What do you have?
# of groups:
in each group:
Total:
Type of strip diagram:

Draw the strip diagram and solve:

5 buckets

5	5	5	5	5

Pre-Assessment

Read each problem below and solve.

1. Aubrey has 6 nickels. How much money does she have in cents? Solve the problem and write the answer below.

Answer: _____**30 cents**_____

2. Which multiplication sentence matches the array below?

● ● ● ●
● ● ● ●

A. 4 × 2 = 8

B. 2 × 4 = 8   **Answers may vary.**

C. 2 + 2 + 2 + 2 = 8

D. 4 + 4 = 8

3. Mark is using repeated subtraction to solve the problem 70 ÷ 10. How many times will 10 need to be subtracted?

A. 7

B. 10

C. 8

D. 9

4. According to the Commutative Property of Multiplication, how can you write the equation 3 × 6 = 18 another way?

A. 6 + 6 + 6 = 18

B. 3 + 3 + 3 + 3 + 3 + 3 = 18

C. 6 × 3 = 18

D. 3 + 3 + 3 = 18

5. Hank is baking 5 rows of 4 cookies. He wants to split the cookies equally among two friends. How many cookies will each person receive? Solve the problem and write the answer below.

Answer: _____**10 cookies**_____

Multiplication Vocabulary

DEFINITION

Multiplication is the **operation** that gives the **product** when you join **factor** groups.
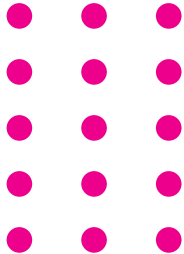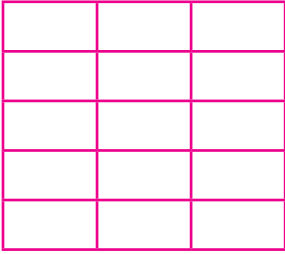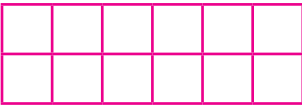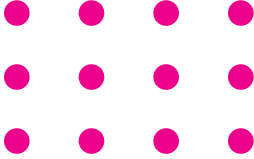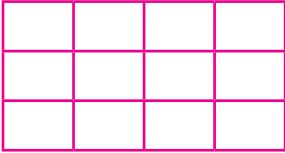
FACTORS

Factors are the numbers that are **multiplied** **together** to find a product.

3 × 5 =

PRODUCT

A product is the **answer** to a **multiplication** problem.

Name _____

Commutative Property of Multiplication

DEFINITION
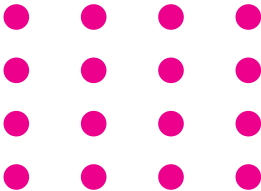
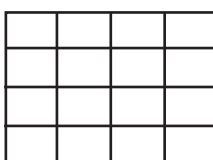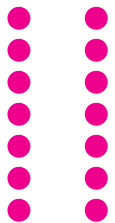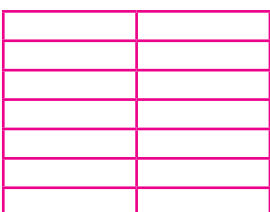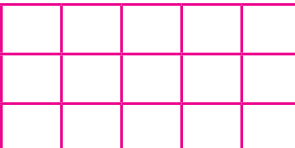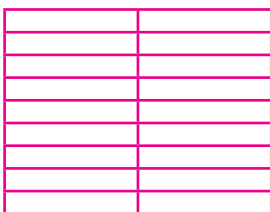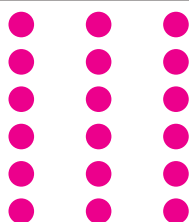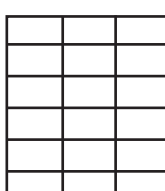The Commutative Property of Multiplication states that _____**numbers**_____ can be multiplied in _____**any**_____ order and their product is the _____**same**_____ .

MODEL	DRAW ARRAY	AREA MODEL	COMMUTATIVE PROPERTY
$5 \times 3 =$ **15** **5** rows of **3**			**3 × 5 = 15**
$2 \times 6 =$ **12** **2** rows of **6**			**6 × 2 = 12**
$1 \times 8 =$ **8** **1** rows of **8**			**8 × 1 = 8**
$3 \times 4 =$ **12** **3** rows of **4**			**4 × 3 = 12**

Commutative Property of Multiplication

Examine the table below. Fill in each box in each row.

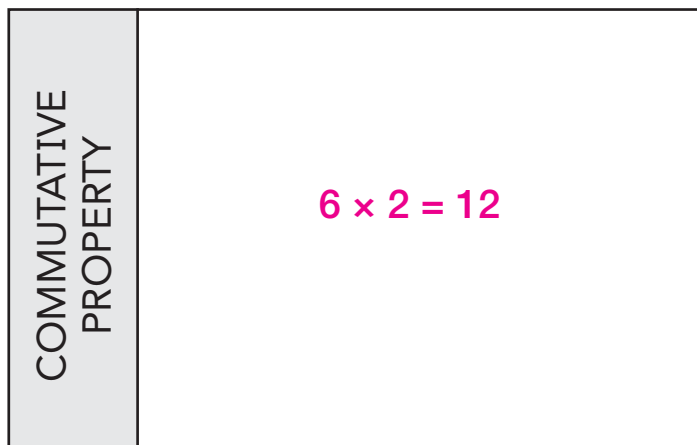| MODEL	DRAW ARRAY	AREA MODEL	COMMUTATIVE PROPERTY
$2 \times 5 = \underline{10}$ $\underline{2}$ rows of $\underline{5}$			$5 \times 2 = 10$
$\underline{4} \times \underline{4} = \underline{16}$ $\underline{4}$ rows of $\underline{4}$			$4 \times 4 = 16$
$\underline{7} \times \underline{2} = \underline{14}$ $\underline{7}$ rows of $\underline{2}$			$2 \times 7 = 14$
$\underline{3} \times \underline{5} = \underline{15}$ $\underline{3}$ rows of $\underline{5}$			$5 \times 3 = 15$
$9 \times 2 = \underline{18}$ $\underline{9}$ rows of $\underline{2}$			$2 \times 9 = 18$
$\underline{6} \times \underline{3} = \underline{18}$ $\underline{6}$ rows of $\underline{3}$			$3 \times 6 = 18$

Representing Multiplication Quiz

Examine the multiplication equation and determine how to represent the equation with groups, repeated addition, arrays, Commutative Property, and on a number line. Make sure to fill in the product for the equation.

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

GROUPS

REPEATED ADDITION

6 + 6 = 12

ARRAY

COMMUTATIVE PROPERTY

6 × 2 = 12

NUMBER LINE

0 1 2 3 4 5 6 7 8 9 10 11 12

Representing Multiplication Quiz

Examine the multiplication equation and determine how to represent the equation with groups, repeated addition, arrays, Commutative Property, and on a number line. Make sure to fill in the product for the equation.

$$5 \times 4 = \underline{\textbf{20}}$$

GROUPS

REPEATED ADDITION

4 + 4 + 4 + 4 + 4 = 20

ARRAY

COMMUTATIVE PROPERTY

4 × 5 = 20

NUMBER LINE

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Representing Multiplication Quiz

Examine the multiplication equation and determine how to represent the equation with groups, repeated addition, arrays, Commutative Property, and on a number line. Make sure to fill in the product for the equation.
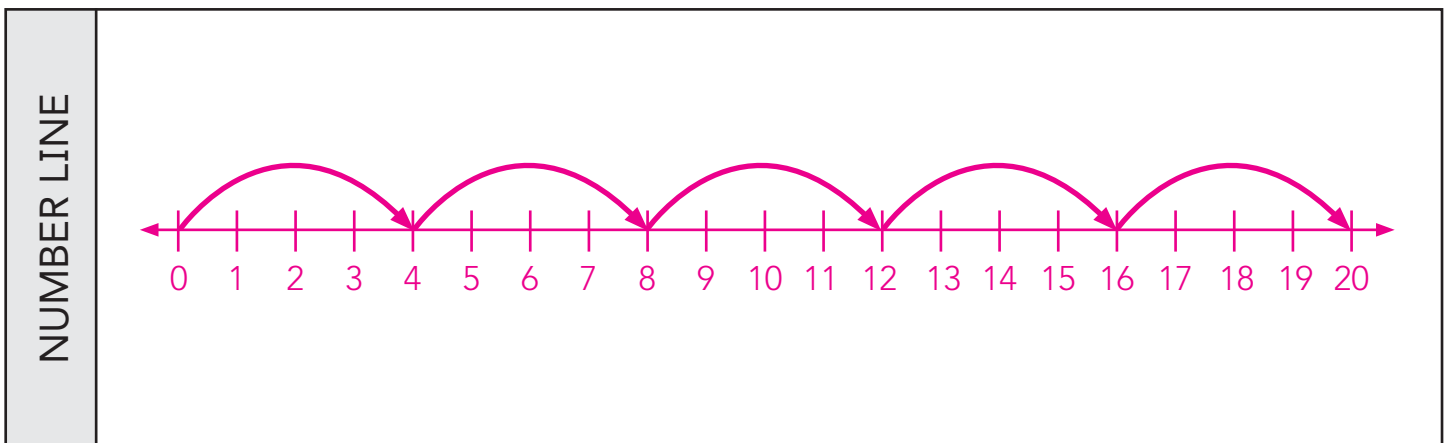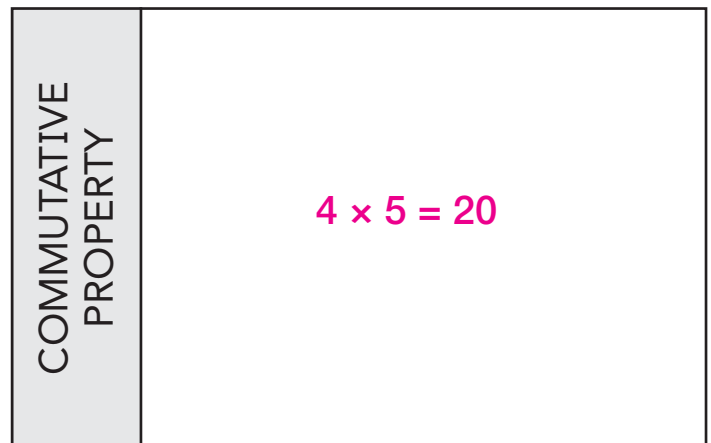
$$7 \times 3 = \underline{21}$$

GROUPS

REPEATED ADDITION

3 + 3 + 3 + 3 + 3 + 3 + 3 = 21

ARRAY

COMMUTATIVE PROPERTY

3 × 7 = 21

NUMBER LINE

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

Representing Multiplication Quiz

Examine the multiplication equation and determine how to represent the equation with groups, repeated addition, arrays, Commutative Property, and on a number line. Make sure to fill in the product for the equation.
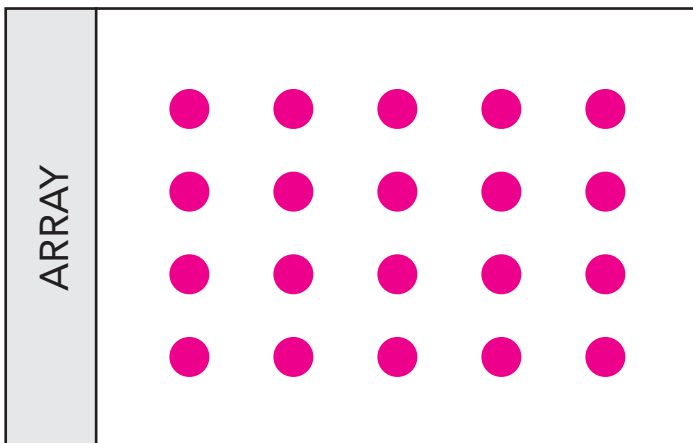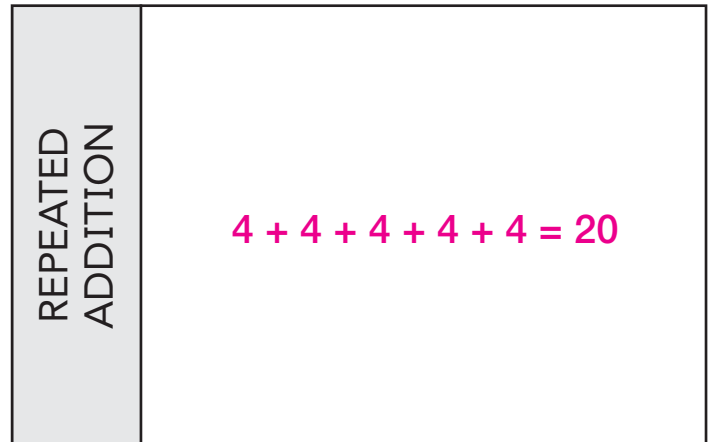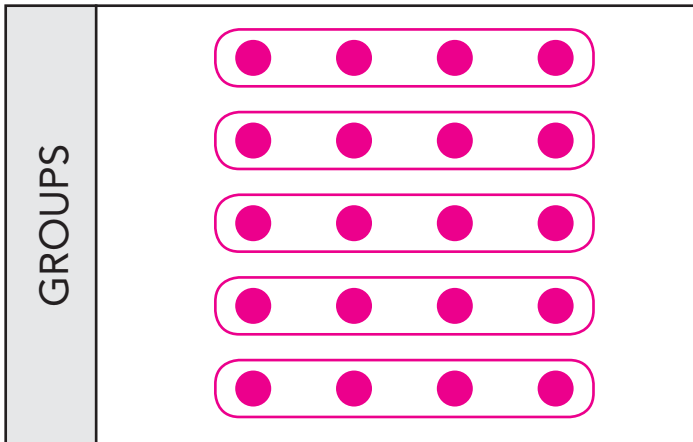
$$8 \times 1 = \underline{\ 8\ }$$

GROUPS

●●●●●●●●

REPEATED ADDITION

$1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 = 8$

ARRAY

● ● ● ● ● ● ● ●

COMMUTATIVE PROPERTY

$1 \times 8 = 8$

NUMBER LINE

0 1 2 3 4 5 6 7 8 9 10

Representing Multiplication Quiz

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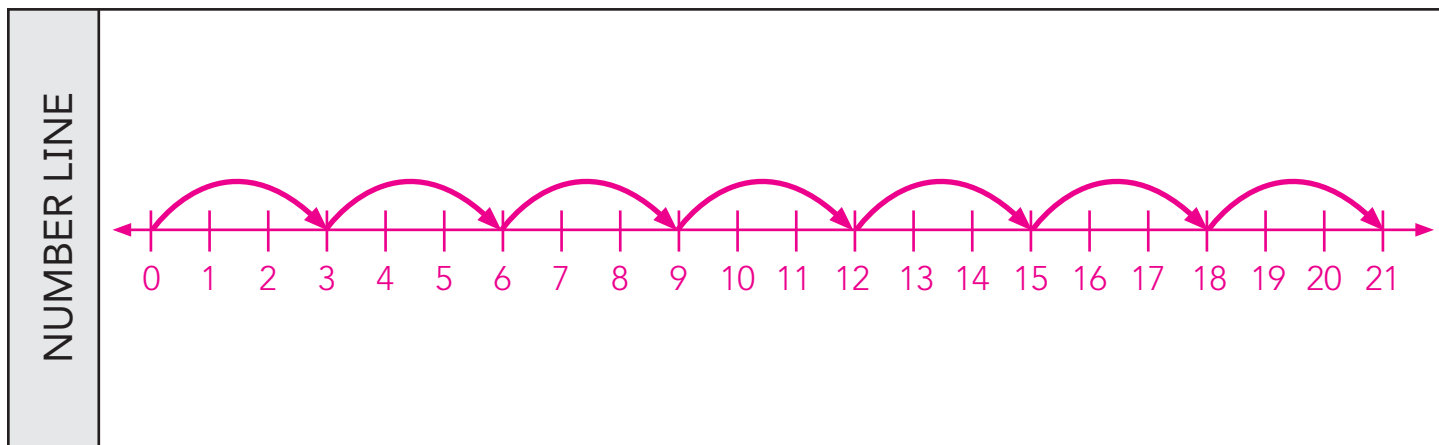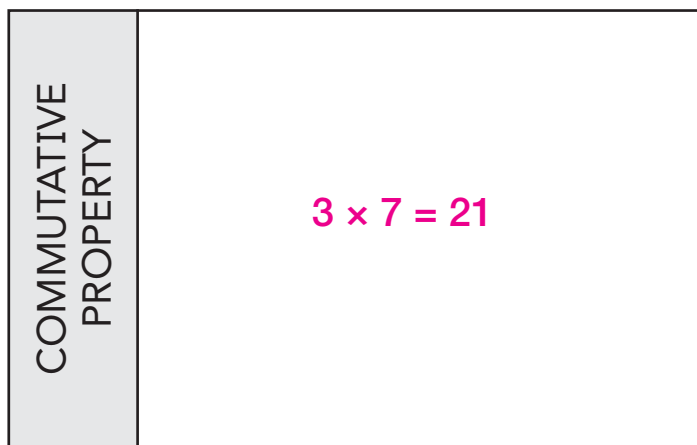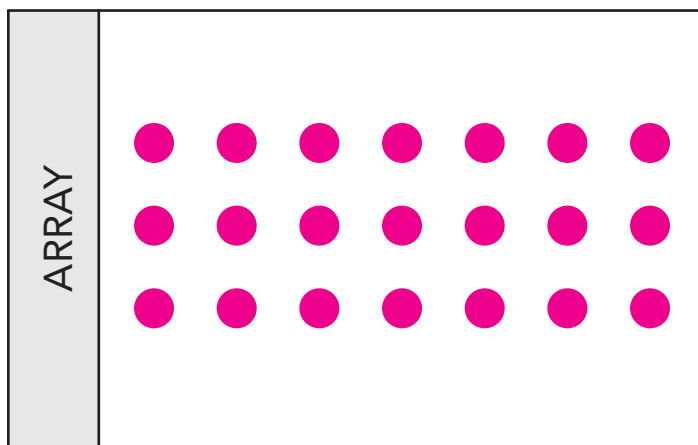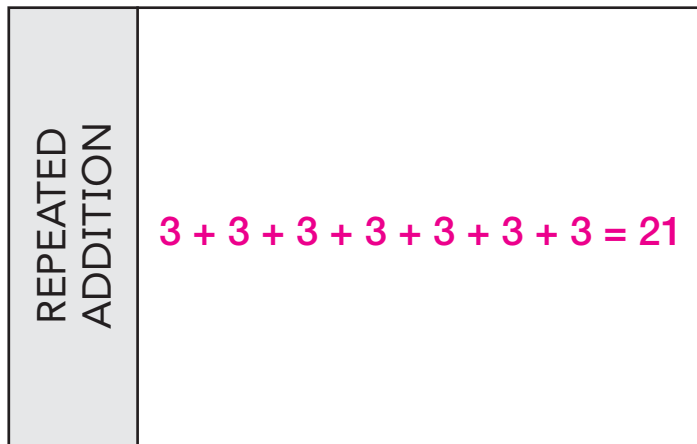
$$3 \times 10 = \underline{30}$$

GROUPS

REPEATED ADDITION

$$10 + 10 + 10 = 30$$

ARRAY

COMMUTATIVE PROPERTY

$$10 \times 3 = 30$$

NUMBER LINE

0 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
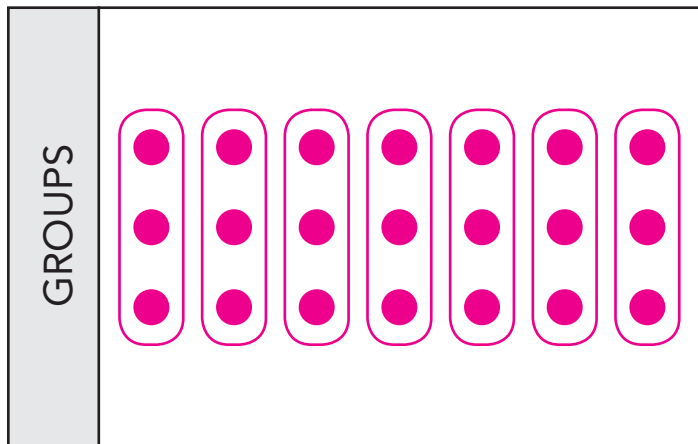
Representing Multiplication Quiz

Examine the multiplication equation and determine how to represent the equation with groups, repeated addition, arrays, Commutative Property, and on a number line. Make sure to fill in the product for the equation.
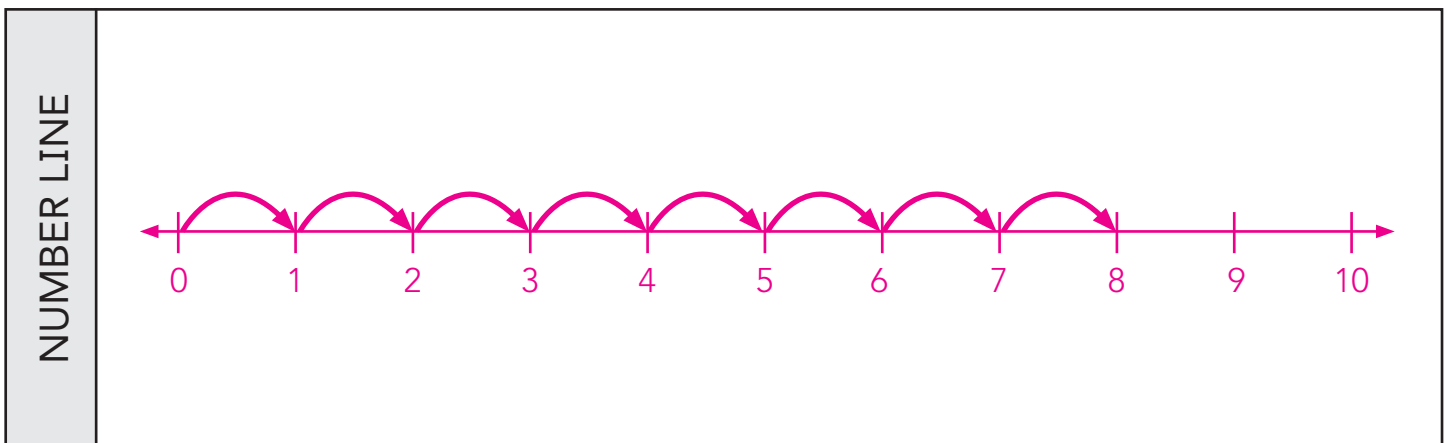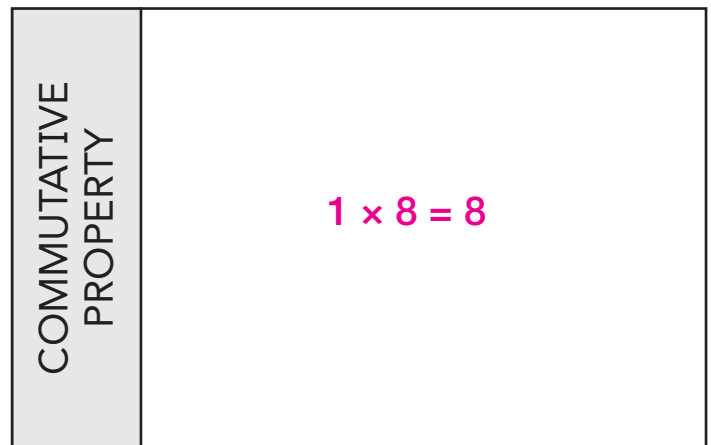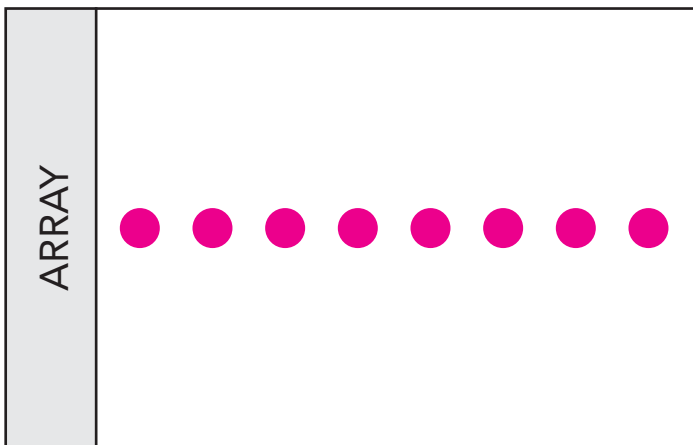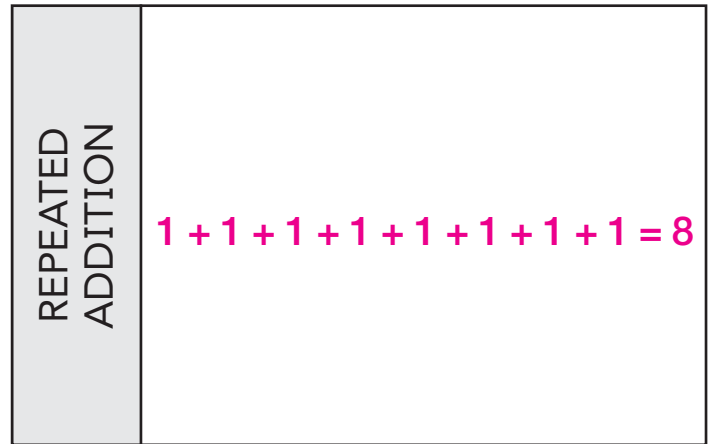
$$4 \times 6 = \underline{\ 24\ }$$

GROUPS

REPEATED ADDITION

6 + 6 + 6 + 6 = 24

ARRAY

COMMUTATIVE PROPERTY

6 × 4 = 24

NUMBER LINE

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Fact Families

A group of ___related___ facts using the ___same___ numbers.

Order of answers will vary.

12
÷   ÷
6   ×   2

__6__ × __2__ = __12__
__2__ × __6__ = __12__
__12__ ÷ __6__ = __2__
__12__ ÷ __2__ = __6__

20
÷   ÷
5   ×   4

__5__ × __4__ = __20__
__4__ × __5__ = __20__
__20__ ÷ __5__ = __4__
__20__ ÷ __4__ = __5__

21
÷   ÷
7   ×   3

__7__ × __3__ = __21__
__3__ × __7__ = __21__
__21__ ÷ __7__ = __3__
__21__ ÷ __3__ = __7__

8
÷   ÷
2   ×   4

__2__ × __4__ = __8__
__4__ × __2__ = __8__
__8__ ÷ __4__ = __2__
__8__ ÷ __2__ = __4__
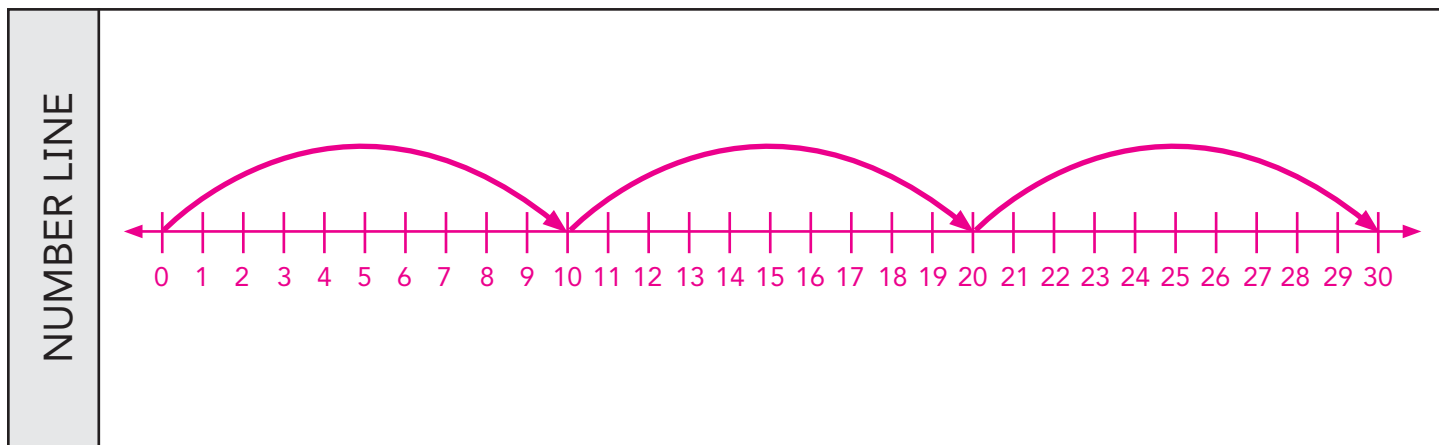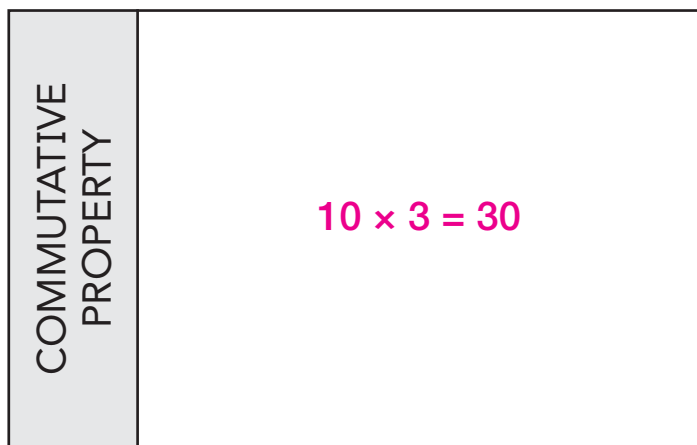
Representing Division Quiz

Examine the division equation and determine how to represent the equation with groups, repeated subtraction, arrays, fact families, and on a number line. Make sure to fill in the quotient for the equation.
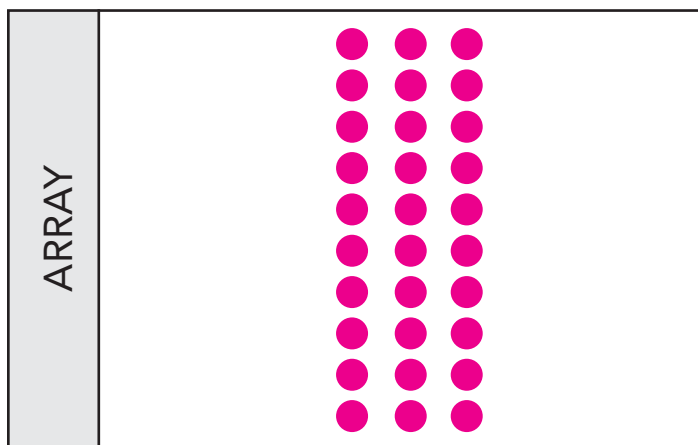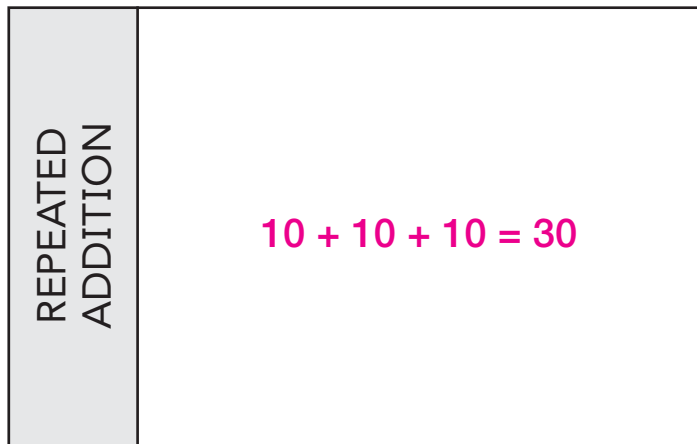
$$24 \div 4 = \underline{\textbf{6}}$$

GROUPS

REPEATED SUBTRACTION

24 – 4 = 20
20 – 4 = 16
16 – 4 = 12
12 – 4 = 8
8 – 4 = 4
4 – 4 = 0

ARRAY

FACT FAMILY

24 ÷ 6 = 4
4 × 6 = 24
6 × 4 = 24

NUMBER LINE

Representing Division Quiz

Examine the division equation and determine how to represent the equation with groups, repeated subtraction, arrays, fact families, and on a number line. Make sure to fill in the quotient for the equation.
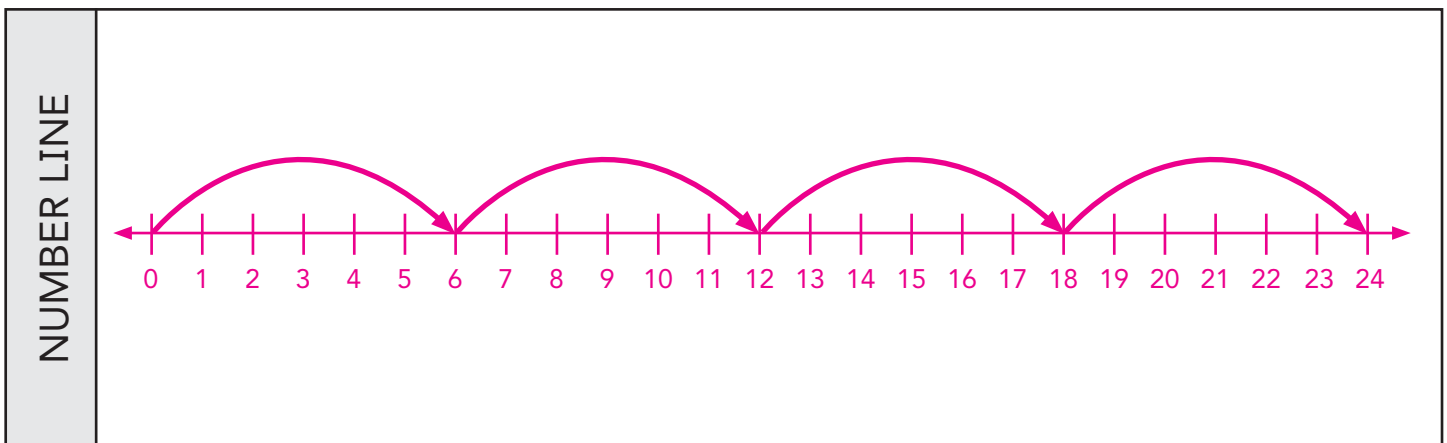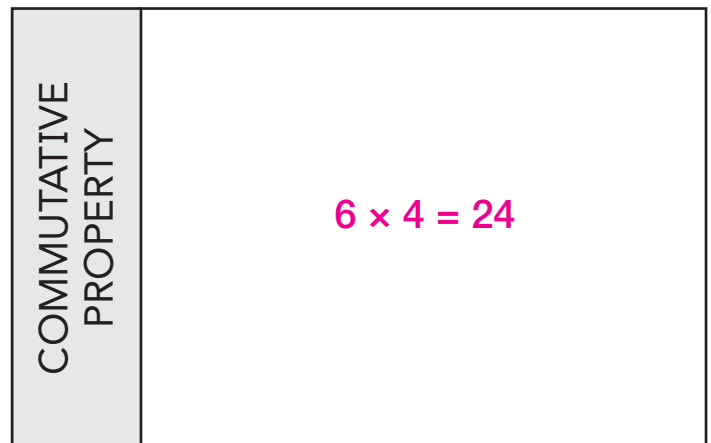
$$30 \div 5 = \underline{\ 6\ }$$

GROUPS

REPEATED SUBTRACTION

$30 - 5 = 25$
$25 - 5 = 20$
$20 - 5 = 15$
$15 - 5 = 10$
$10 - 5 = 5$
$5 - 0 = 0$

ARRAY

FACT FAMILY

$30 \div 6 = 5$
$5 \times 6 = 30$
$6 \times 5 = 30$

NUMBER LINE

0 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

Representing Division Quiz

Examine the division equation and determine how to represent the equation with groups, repeated subtraction, arrays, fact families, and on a number line. Make sure to fill in the quotient for the equation.
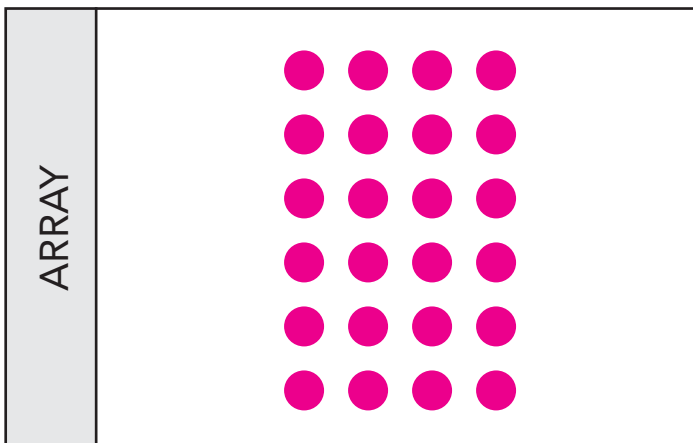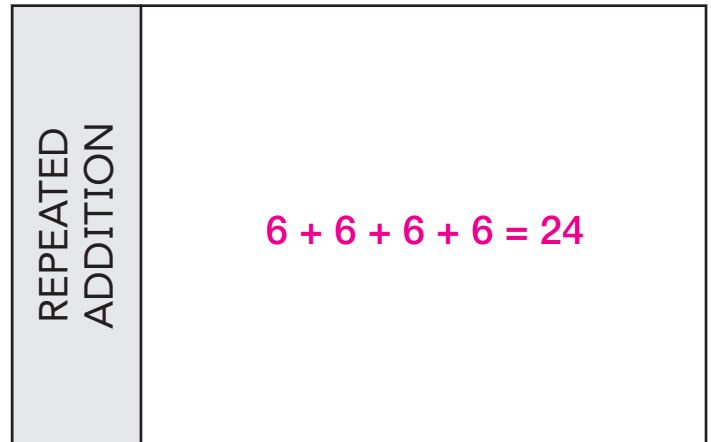
$$14 \div 7 = \underline{\quad 2 \quad}$$

GROUPS

REPEATED SUBTRACTION

14 – 7 = 7
7 – 7 = 0

ARRAY

FACT FAMILY

14 ÷ 2 = 7
7 × 2 = 14
2 × 7 = 14

NUMBER LINE

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

Representing Division Quiz

Examine the division equation and determine how to represent the equation with groups, repeated subtraction, arrays, fact families, and on a number line. Make sure to fill in the quotient for the equation.

$$21 \div 3 = \underline{\ 7\ }$$

GROUPS

● ● ● ● ● ● ●
● ● ● ● ● ● ●
● ● ● ● ● ● ●

REPEATED SUBTRACTION

21 − 3 = 18
18 − 3 = 15
15 − 3 = 12
12 − 3 = 9
9 − 3 = 6
6 − 3 = 3
3 − 3 = 0

ARRAY

● ● ● ● ● ● ●
● ● ● ● ● ● ●
● ● ● ● ● ● ●

FACT FAMILY

21 ÷ 7 = 3
7 × 3 = 21
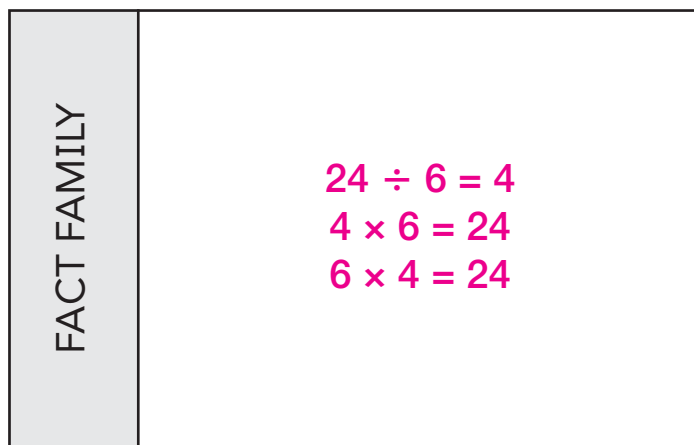3 × 7 = 21

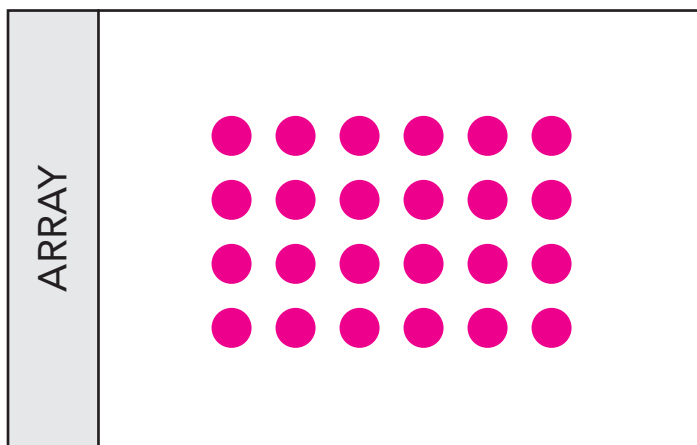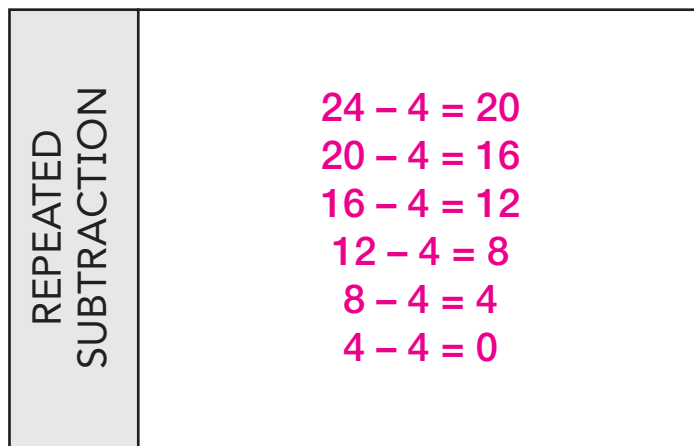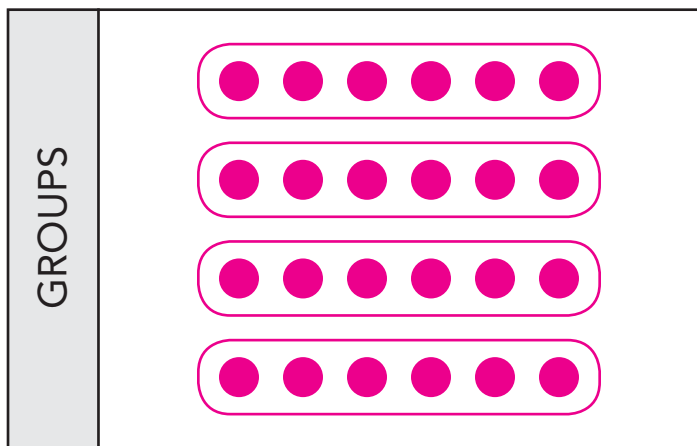**NUMBER LINE**

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

Representing Division Quiz

Examine the division equation and determine how to represent the equation with groups, repeated subtraction, arrays, fact families, and on a number line. Make sure to fill in the quotient for the equation.

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

GROUPS

• • • • •
• • • • •

REPEATED SUBTRACTION

10 – 2 = 8
8 – 2 = 6
6 – 2 = 4
4 – 2 = 2
2 – 2 = 0

ARRAY

• • • • •
• • • • •

FACT FAMILY

10 ÷ 5 = 2
2 × 5 = 10
5 × 2 = 10

NUMBER LINE

0 1 2 3 4 5 6 7 8 9 10

Representing Division Quiz

Examine the division equation and determine how to represent the equation with groups, repeated subtraction, arrays, fact families, and on a number line. Make sure to fill in the quotient for the equation.
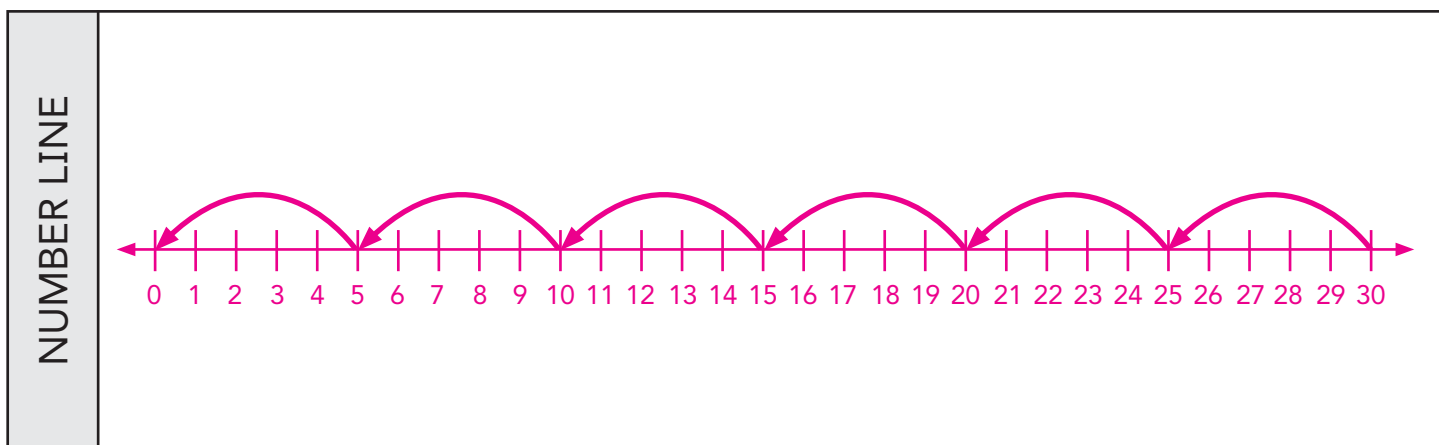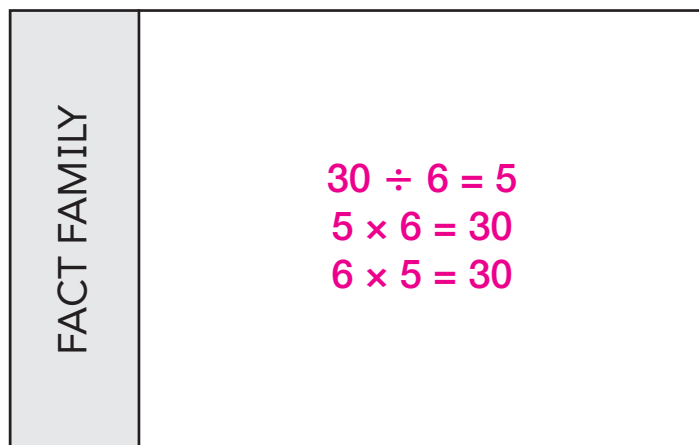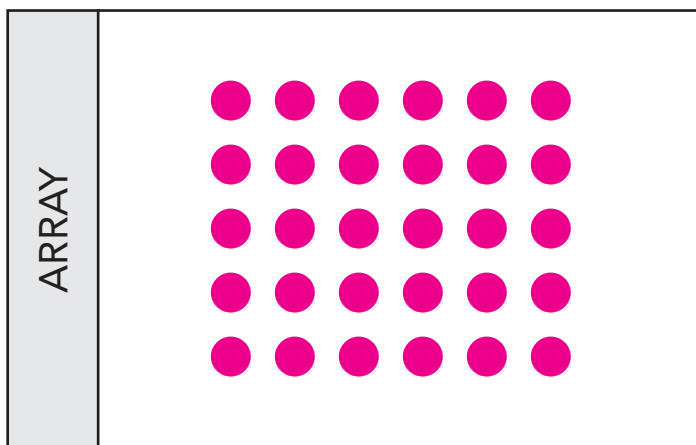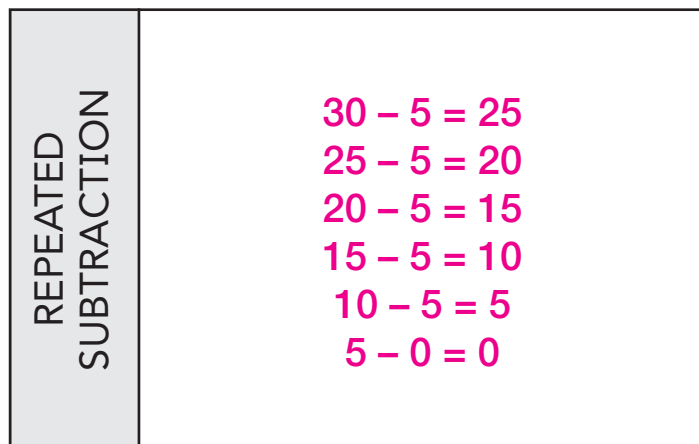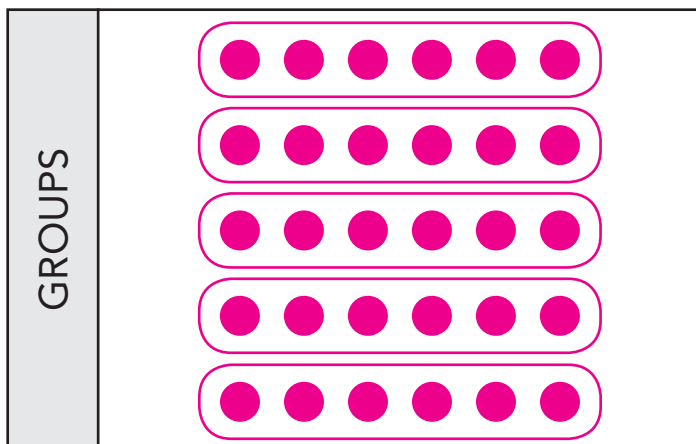
$$9 \div 1 = \underline{\ 9\ }$$

GROUPS

● ● ● ● ● ● ● ● ●

REPEATED SUBTRACTION

$9 - 1 = 8$
$8 - 1 = 7$
$7 - 1 = 6$
$6 - 1 = 5$
$5 - 1 = 4$
$4 - 1 = 3$
$3 - 1 = 2$
$2 - 1 = 1$
$1 - 1 = 0$

ARRAY

● ● ● ● ● ● ● ● ●

FACT FAMILY

$9 \div 9 = 1$
$1 \times 9 = 9$
$9 \times 1 = 9$

NUMBER LINE

0 1 2 3 4 5 6 7 8 9

Multiplication & Division Strip Diagrams Quiz

Read each problem below. Create a strip diagram and then write an equation to solve.

Heather has 10 photo pages to fill. If each photo page can hold 5 pictures, how many pictures can Heather use to fill her photo pages? Draw a strip diagram and write an equation to solve.

50

| 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
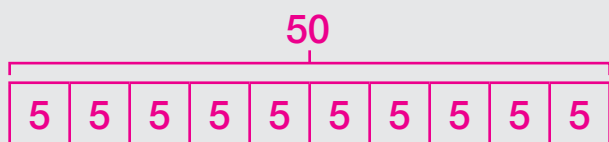
Equation: __5 × 10 = 50__

Tommy made 30 cookies. If he wants to split the cookies and put 5 on each tray, how many trays does Tommy need? Draw a strip diagram and write an equation to solve.

30

| 5 | 5 | 5 | 5 | 5 | 5 |
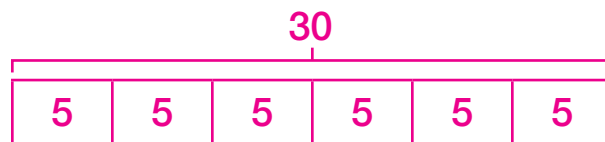
Equation: __30 ÷ 5 = 6__

Emily has 18 beads. If Emily wants to make bracelets that each contain 9 beads, how many bracelets can Emily make? Draw a strip diagram and write an equation to solve.

18

| 9 | 9 |
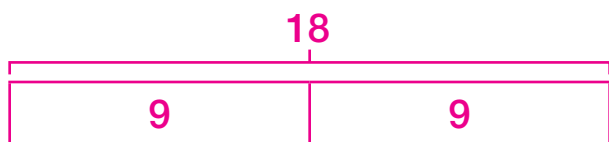
Equation: __18 ÷ 9 = 2__

Kyle has 3 barrels of apples. If each barrel contains 8 apples, what is the total number of apples that Kyle has? Draw a strip diagram and write an equation to solve.

24

| 8 | 8 | 8 |
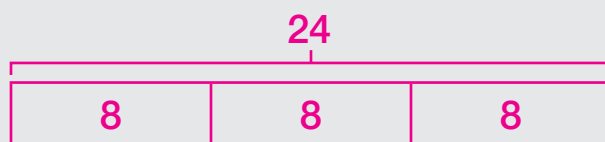
Equation: __3 × 8 = 24__

Assessment

Examine the multiplication equation and determine how to represent the equation with groups, repeated addition, arrays, Commutative Property, and on a number line. Make sure to fill in the product for the equation.
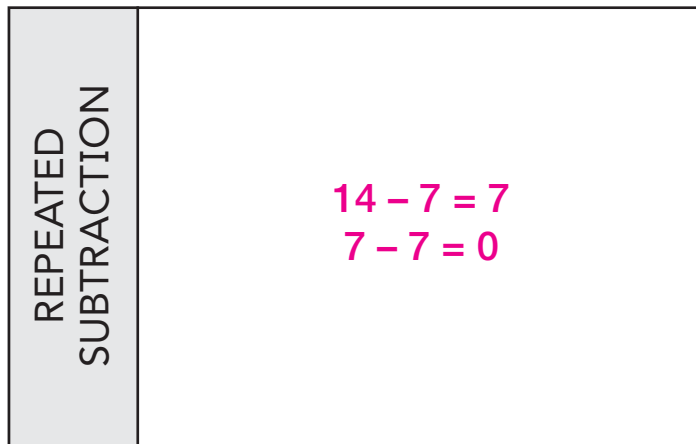
$$7 \times 4 = \underline{\textbf{28}}$$
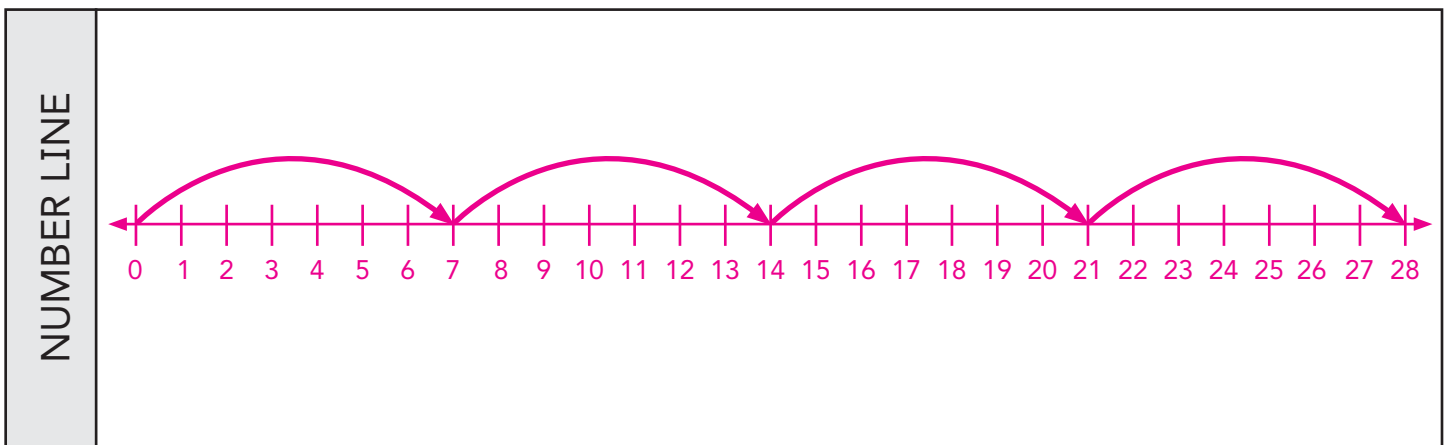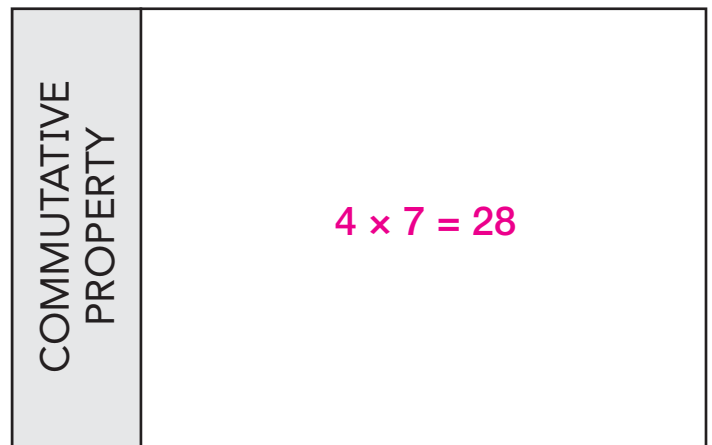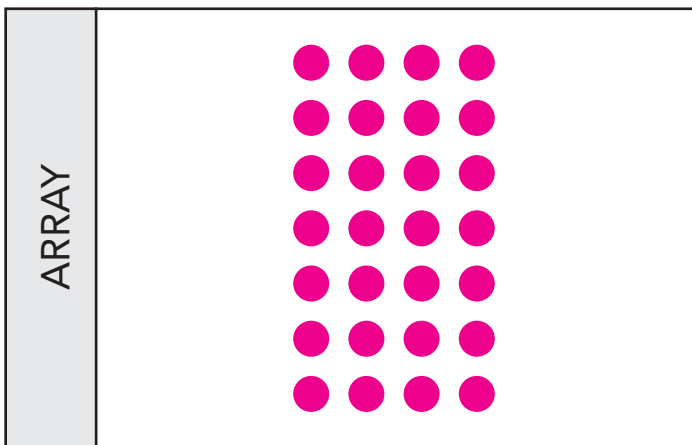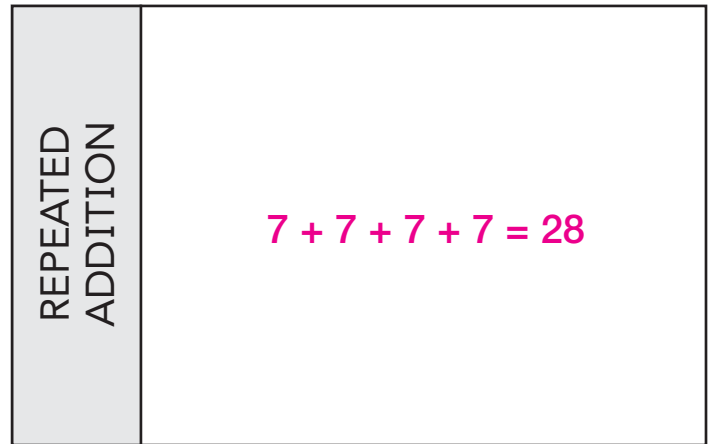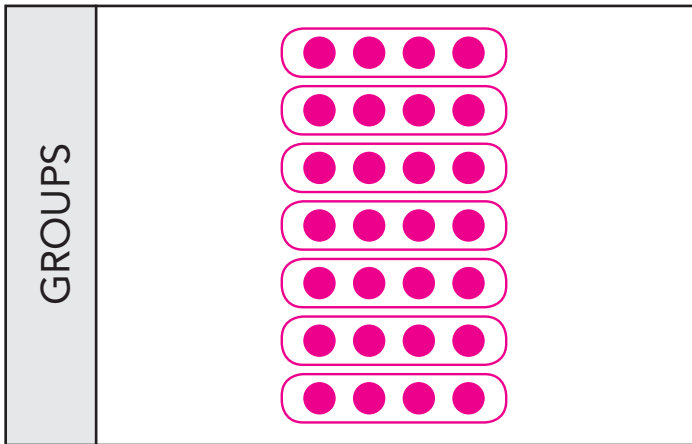
GROUPS

REPEATED ADDITION

7 + 7 + 7 + 7 = 28

ARRAY

COMMUTATIVE PROPERTY

4 × 7 = 28

NUMBER LINE

0 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

Examine the division equation and determine how to represent the equation with groups, repeated subtraction, arrays, fact families, and on a number line. Make sure to fill in the quotient for the equation.
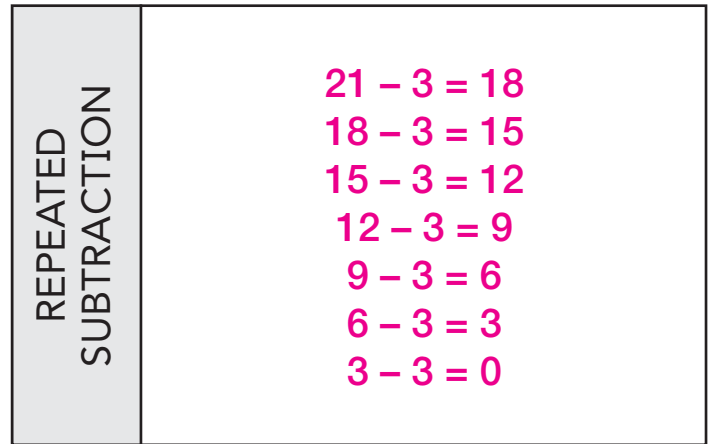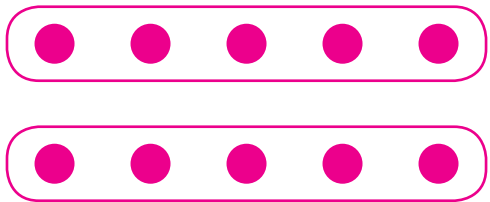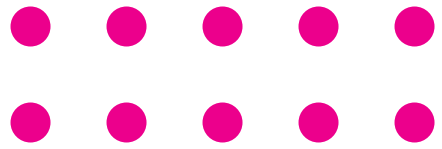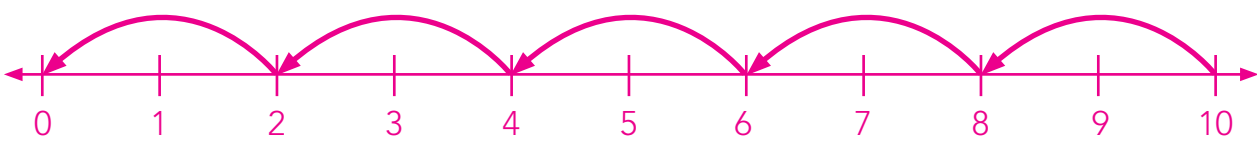
$$36 \div 6 = \underline{\textbf{28}}$$

GROUPS

REPEATED SUBTRACTION

36 – 6 = 30
30 – 6 = 24
24 – 6 - 18
18 – 6 = 12
12 – 6 = 6
6 – 6 = 0

ARRAY

FACT FAMILY

36 ÷ 6 = 6
6 × 6 = 36
6 × 6 = 36

NUMBER LINE

0 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
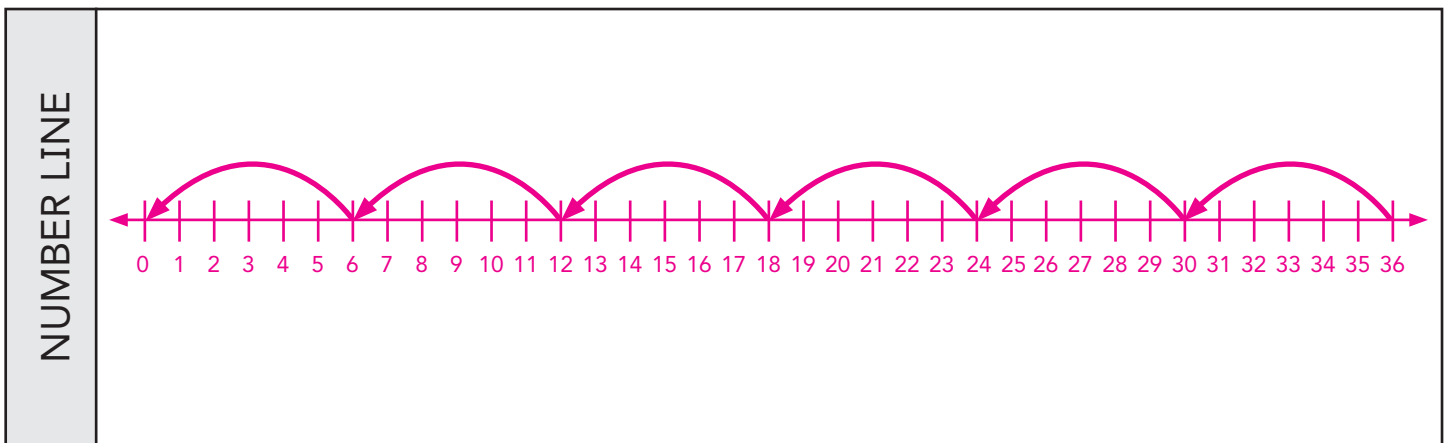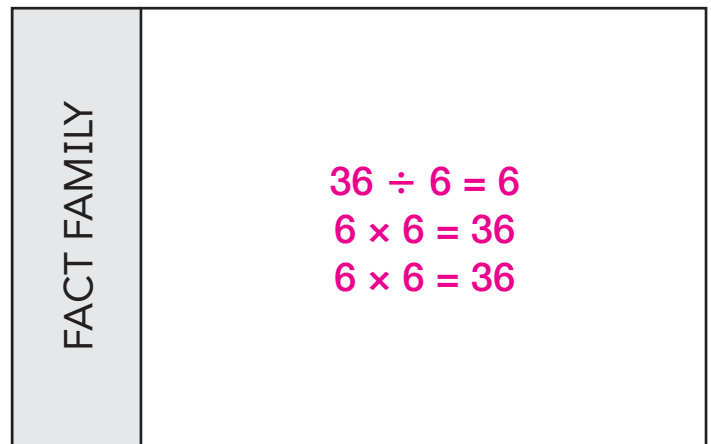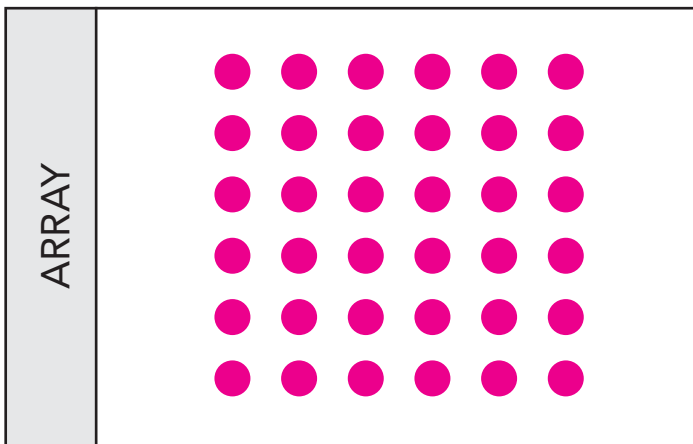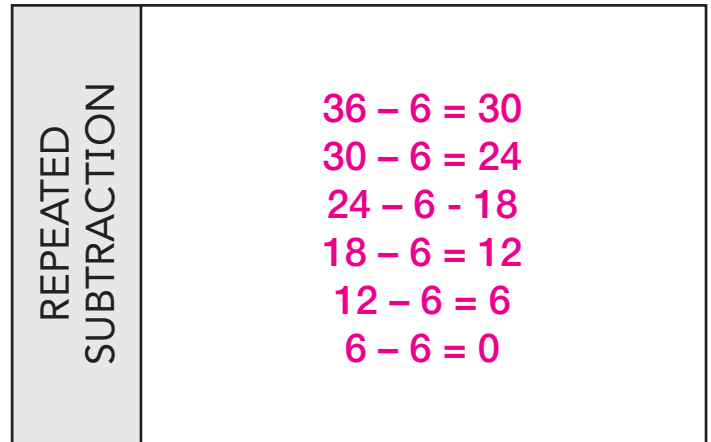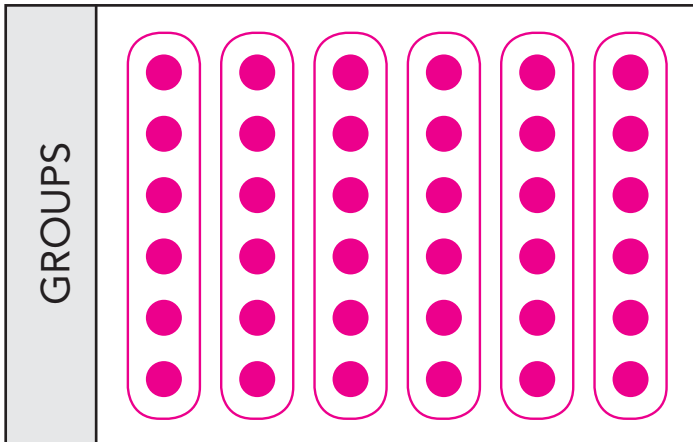
Read each problem below and solve.

11. Mark has 24 baseballs to sort into bins. If Mark has 6 bins, how many baseballs should he put in each bin? Draw equal groups to model and solve. Write the equation and answer below.

Equation and answer: _____ $24 \div 6 = 4$ _____

12. Kendra has 5 boxes of markers. If each box contains 10 markers, how many markers does Kendra have in all? Solve by modeling repeated addition. Write the equation and answer below.

Equation and answer: _____ $5 \times 10 = 50$ _____

13. Wendi had 2 pots of flowers. If each pot contained 9 flowers, how many flowers did Wendi have in all? Model how to solve this problem using repeated addition. Write the equation and answer below.

Equation and answer: : _____ $2 \times 9 = 18$ _____

14. Cali has 15 ribbons. If she wants to split the ribbons into equal piles of 3, how many ribbons will Cali have in each pile? Draw equal groups to model and solve. Write the equation and answer below.

Equation and answer: _____ $15 \div 3 = 5$ _____

15. Noelle's family has 4 barns of chickens. If each barn contains 8 chickens, how many chickens does Noelle's family have? Draw an array or area model to solve the problem. Write the equation and answer below.

Equation and answer: _____ $4 \times 8 = 32$ _____

16. Donny used 2 cups of flour to make a loaf of his homemade bread. If he makes 8 more loaves, how many cups of flour would Donny need? Model this problem on a number line. Write the equation and answer below.

Equation and answer: _____ $9 \times 2 = 18$ _____

17. Tania has 2 barrels of apples. If each barrel contains 11 apples, what is the total amount of apples that Tania has? Draw a strip diagram to model and solve. Write the equation and answer below.

Equation and answer: _____ 2 × 11 = 22 _____

18. Cassidy has 30 rubber bands. She wants to split the rubber bands into 6 equal groups. How many rubber bands will be in each group? Draw a strip diagram to model and solve. Write the equation and answer below.

Equation and answer: _____ 30 ÷ 6 = 5 _____

19. Richard made 25 cupcakes. If he wants to make up trays of 5 cupcakes, how many cupcakes will be on each tray? Draw a strip diagram to model and solve. Write the equation and answer below.

Equation and answer: _____ 25 ÷ 5 = 5 _____

20. George picked up 3 packs of crackers. If each pack contains 11 crackers, how many crackers did George pick up in all? Draw a strip diagram and solve. Write the equation and answer below.

Equation and answer: _____ 3 × 11 = 33 _____

Examine each equation and draw the equal groups.

$$9 \div 3 = \underline{\textbf{3}}$$

Examine each equation and draw the equal groups.

$$15 \div 5 = \underline{\textbf{3}}$$

Examine each equation and draw the equal groups.

$$14 \div 7 = \underline{\textbf{2}}$$

Examine each equation and draw the equal groups.

$$20 \div 4 = \underline{5}$$

Examine each equation and draw the equal groups.

$$18 \div 6 = \underline{\textbf{3}}$$

Examine each equation and draw the equal groups.

$$8 \div 2 = \underline{\textbf{4}}$$

Equal Groups Division Cards, Set 1

Examine each equation and draw the equal groups.

$$21 \div 3 = \underline{7}$$

Equal Groups Division Cards, Set 1

Examine each equation and draw the equal groups.

$$22 \div 11 = \underline{\textbf{2}}$$

Examine each equation and draw the equal groups.

$$16 \div 4 = \underline{\quad 4 \quad}$$

Examine each equation and draw the equal groups.

$$12 \div 6 = \underline{\textbf{2}}$$

Equal Groups Division Cards, Set 1

Examine each repeated subtraction sentence and write the division equation.

$$20 - 5 - 5 - 5 - 5 = \underline{\ 0\ }$$

Equation: $\underline{\ 20 \div 5 = 4\ }$

Examine each repeated subtraction sentence and write the division equation.

12 – 2 – 2 – 2 – 2 – 2 – 2 = __0__

Equation: __12 ÷ 2 = 6__

Examine each repeated subtraction sentence and write the division equation.

$$16 - 4 - 4 - 4 - 4 = \underline{\ 0\ }$$

Equation: $\underline{\ 16 \div 4 = 4\ }$

Examine each repeated subtraction sentence and write the division equation.

$$10 - 5 - 5 = \underline{\ 0\ }$$

Equation: $\underline{\ 10 \div 5 = 2\ }$

Examine each division equation and write the repeated subtraction sentence.

$$18 \div 3 = \underline{\ 6\ }$$

Subtraction Sentence: _____

$$18 - 3 - 3 - 3 - 3 - 3 - 3 = 0$$

Examine each division equation and write the repeated subtraction sentence.

$$25 \div 5 = \underline{\ 5\ }$$

Subtraction Sentence: _____

$$25 - 5 - 5 - 5 - 5 - 5 = 0$$

Examine each division equation and write the repeated subtraction sentence.

$$14 \div 2 = \underline{\ 7\ }$$

Subtraction Sentence: _____

$$14 - 2 - 2 - 2 - 2 - 2 - 2 - 2 = 0$$

Examine each division equation and write the repeated subtraction sentence.

$$28 \div 7 = \underline{\ 4\ }$$

Subtraction Sentence: _____

$$28 - 7 - 7 - 7 - 7 = 0$$

Examine each equation and model on the number lines.

$$14 \div 2 = \underline{\ 7\ }$$

$$21 \div 7 = \underline{\ 3\ }$$

Draw your own number line. Model the equation.

$$12 \div 3 = \underline{\ 4\ }$$
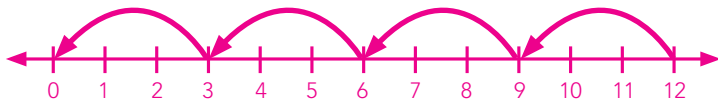
$$15 \div 5 = \underline{\ 3\ }$$

Examine each number line and write the division equation.

Equation: __18 ÷ 3 = 6__

Equation: __20 ÷ 2 = 10__

Equation: __4 ÷ 2 = 2__

Equation: __16 ÷ 8 = 2__

Examine each array or area model and determine the correct division equation.
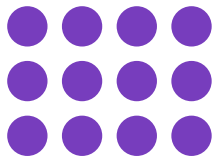
Equation: **12 ÷ 3 = 4**

Equation: **8 ÷ 1 = 8**

Equation: **12 ÷ 2 = 6**
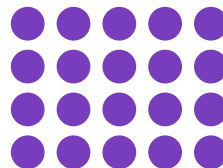
Equation: **20 ÷ 4 = 5**

Examine each division equation and construct an area model or array to represent the equation.

21 ÷ 7 = __3__   20 ÷ 4 = __5__

Models will vary.

12 ÷ 4 = __3__   18 ÷ 2 = __9__

Examine the division equation and determine how to represent the equation with groups, repeated subtraction, arrays, related facts, and on a number line. Make sure to fill in the quotient for the equation.

$$15 \div 3 = \underline{\ 5\ }$$

GROUPS
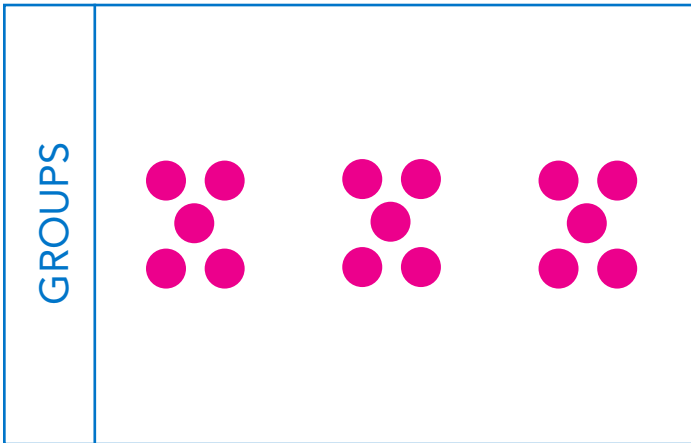
REPEATED SUBTRACTION

$$15 - 3 - 3 - 3 - 3 - 3 = 0$$

ARRAY

FACT FAMILY

$$15 \div 5 = 3$$
$$3 \times 5 = 15$$
$$5 \times 3 = 15$$

NUMBER LINE

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
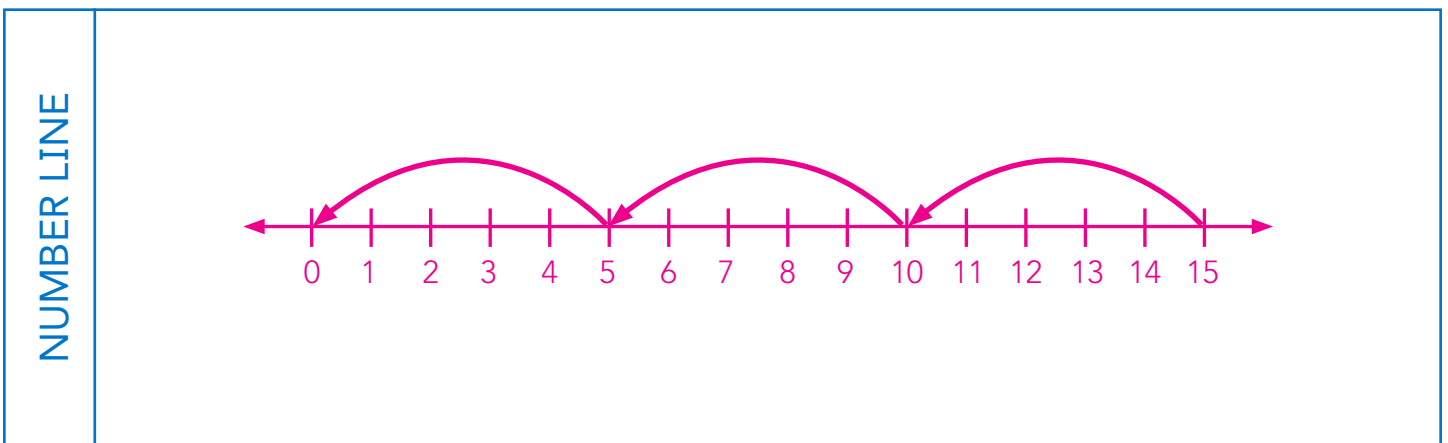
Heidi wants to model the equation 24 ÷ 4 = 6 by using repeated subtraction. What should this look like? Model this representation below.

24 – 4 – 4 – 4 – 4 – 4 – 4 = 0

Fred wants to model the equation 27 ÷ 3 = 9 by using equal groups. What should this look like? Model this equation below.

Mitchell drew the area model below. What division equation is represented by this area model? Write the equation below.
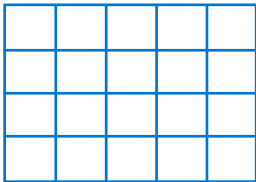
Equation: <u>4 × 5 = 20</u>

Amanda used a number line to model the equation 15 ÷ 5 = 3. What should this representation look like? Draw a number line below and model the equation.
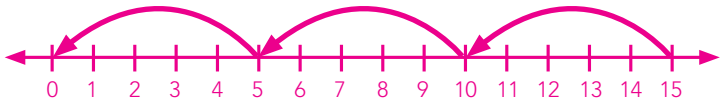
Monica wrote the equation 18 ÷ 3 = 6 on her paper. What three other equations should Monica write down to complete the fact family?

$$18 \div 6 = 3$$
$$3 \times 6 = 18$$
$$6 \times 3 = 18$$

Rita has 4 baskets of oranges. If each basket contains 3 oranges, how many oranges does Rita have in all? Draw a strip diagram and solve.

12 oranges

| 3 | 3 | 3 | 3 |
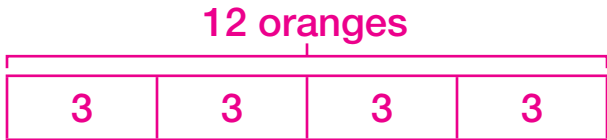
Marcus has 6 buckets of basketballs. Each bucket contains 5 basketballs. Draw a strip diagram to model and solve for the total number of basketballs.

30 basketballs

5	5	5	5	5	5
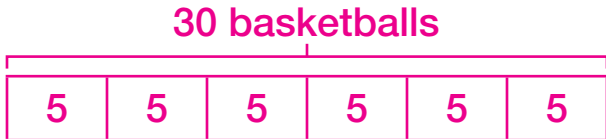
Kim has 2 piles of towels. If each pile has 7 towels, how many towels does Kim have in all? Draw a strip diagram to model and solve the problem.

14 towels

7	7

Nathan has 9 boxes of pencils. If each box contains 2 pencils, what is the total number of pencils? Draw a strip diagram and solve.

18 pencils

| 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
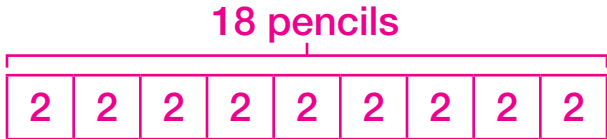
Tina has 12 bouncy balls to split among 6 friends. How many bouncy balls will each friend receive? Draw a strip diagram and solve.

Each friend will get 2 bouncy balls.

2	2	2	2	2	2

Quinn divides 20 bananas equally into 5 boxes. How many bananas are in each box? Draw a strip diagram to model and solve for the number of bananas in each box.

There are 5 bananas in each box.

4	4	4	4	4

Harvey planted 16 plants in his garden. If he wants to put 4 plants in each pot, how many pots will Harvey need? Draw a strip diagram and solve.

Harvey needs 4 pots.

4	4	4	4

Theo found 18 books on the classroom floor. Theo's teacher asked him to put them in stacks of 6. How many stacks of books will Theo be able to make? Draw a strip diagram and solve.

3 stacks of books

6	6	6

Cody had 3 boxes of chocolates.
Each box contained 8 chocolates.
How many chocolates did Cody
have in all?

What do you have?
# of groups: _____3_____
in each group: _____8_____
Total: _____24_____
Type of strip diagram: multiplication

Draw the strip diagram and solve:

8	8	8

Blaire has 20 stuffed animals. If she wants to put 5 stuffed animals in each pile, how many piles of stuffed animals will Blaire have?

What do you have?
# of groups: _____4_____
in each group: _____5_____
Total: _____20_____
Type of strip diagram: _____division_____

Draw the strip diagram and solve:

5	5	5	5

Katie found 18 seashells on the beach. She divided them into two equal piles. How many seashells will Katie have in each pile?

What do you have?
# of groups: _____2_____
in each group: _____9_____
Total: _____18_____
Type of strip diagram: ____division____

Draw the strip diagram and solve:

9	9

Kevin has 10 buckets of oranges. Each bucket has 5 oranges. What is the total number of oranges in Kevin's 10 buckets?

What do you have?
# of groups: _____10_____
in each group: _____5_____
Total: _____50_____
Type of strip diagram: _multiplication_

Draw the strip diagram and solve:

| 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |

Johnny has 6 barrels of apples. Each barrel has 5 apples in it. How many apples does Johnny have in all? Draw a strip diagram and write an equation to solve.

$$6 \times 5 = 30$$

| 5 | 5 | 5 | 5 | 5 | 5 |

Cassidy has 20 cupcakes. She wants to split the cupcakes between herself and 4 friends. How many cupcakes will each person receive? Draw a strip diagram and write an equation to solve.

$$20 \div 5 = 4$$

4	4	4	4	4

Holly has 6 photo albums. If each photo album contains 10 photos, what is the total number of photos that Holly has? Draw a strip diagram and write an equation to solve.

$$6 \times 10 = 60$$

10	10	10	10	10	10

Jared made 14 drawings. If he wants to evenly split the drawings between two walls, how many drawings will be on each wall? Draw a strip diagram and write an equation to solve.

$$14 \div 7 = 2$$

7	7

Brandon has 45 photos. He has 9 pages to fill with photos. If he puts the same number of photos on each page, how many photos will be on each page? Draw a strip diagram and write an equation to solve.

$$45 \div 9 = 5$$

5	5	5	5	5	5	5	5	5

Conner baked 3 trays of muffins. Each tray holds 8 muffins. How many muffins did Conner bake in all? Draw a strip diagram and write an equation to solve.

8 × 3 = 24

8	8	8

Mia has 15 basketballs. She wants to split the basketballs into 5 equal groups. Model how to draw and solve this problem using equal groups.

$$15 \div 5 = 3$$
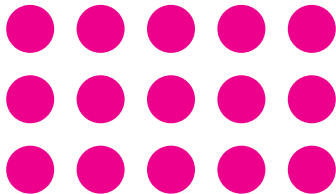
Solve the problem 8 × 4 = _____. Model using repeated addition.

8 + 8 + 8 + 8 = 24

Write the fact family that includes:

$$4 \times 5 = 20$$

$$5 \times 4 = 20$$
$$20 \div 4 = 5$$
$$20 \div 5 = 4$$

Math Hunt Cards

Jake's dog has 22 chew toys. Jake wants to split the toys into equal groups. If Jake puts 2 chew toys in each group, how many groups of chew toys will Jake make? Draw a strip diagram and solve.

$$22 \div 2 = 11$$

2	2	2	2	2	2	2	2	2	2	2

Trey wants to model the problem 2 × 10 = __20__ on a number line. Draw a number line and model the multiplication problem.

Samantha has 50 beads. If Samantha needs 10 beads to make a bracelet, how many bracelets can Samantha make? Draw a strip diagram and solve.

$$50 \div 10 = 5$$

10	10	10	10	10

Write the fact family that includes:

14 ÷ 2 = 7

14 ÷ 7 = 2
2 × 7 = 14
7 × 2 = 14

Math Hunt Cards

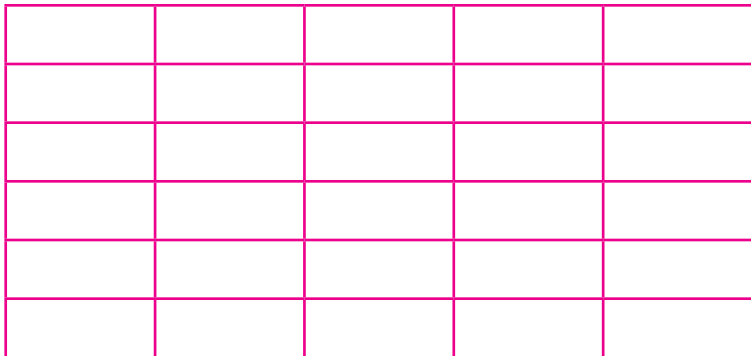Model the equation 24 ÷ 6 = __4__ by creating an array or area model.
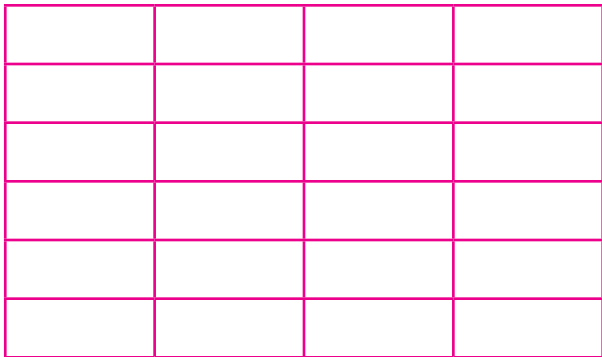
Tiffany has 6 bags of clothes. If each bag contains 4 pieces of clothing, how many pieces of clothing are there in all? Draw a strip diagram to model the problem and solve.

$6 \times 4 = 32$

| 4 | 4 | 4 | 4 | 4 | 4 |

Alex wants to model the problem 6 × 5 = __**30**__.
Draw an array or area model to represent the multiplication problem.

Model the equation 30 ÷ 10 = __3__ by creating a number line.

A number line from 0 to 30 with tick marks at each integer. Three arcs span from 0 to 10, 10 to 20, and 20 to 30, with arrows pointing to 0, 10, and 20.

View the strip diagram and solve.

16

| 4 ? | 4 ? | 4 ? | 4 ? |