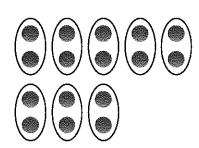
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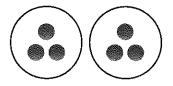
12.1 Divide by 2

Write a division equation for the picture.

1.



2.



Problem Solving

Use the table for 3-4.

3. Two animals of the same kind have a total of 12 legs. Which animal is it? Write a division sentence to show how to find the answer.

Legs or	n Animals
Animal	Number of Legs
Spider	8
Beetle	6
Frog	4
Duck	2

- 4. There are 4 frogs and 3 different animals at a pond. The animals have a total of 22 legs in all. What other kind of animal is at the pond? Explain.
- 5. There are 16 boots on a shelf. If there are 2 boots in each pair, how many pairs of boots are there? Explain.



- 6. A bus has 18 students. The students are seated in twos. How many seats do the students take up on the bus?
 - **(A)** 18
 - **B** 9
 - **(C)** 16
 - **(D)** 8
- 8. Demarcus likes to watch butterflies. He counts a total of 10 wings in all. If each butterfly has a pair of wings, how many butterflies does Demarcus see?
 - (A) 20
 - **(B)** 10
 - **©** 5
 - **(D)** 2
- 10. **Multi-Step** A store has 14 gloves. Two of the pairs are black. The rest are brown. How many pairs of brown gloves are there?
 - **(A)** 5
 - **B** 8
 - © 12
 - **D** 7

- 7. There are 16 students playing a game. Each student has a partner. How many pairs of partners are playing the game?
 - **A** 7
 - **B** 14
 - **©** 8
 - **(D)** 16
- 9. Tanya makes a bracelet with 20 beads. She makes a repeating pattern of two red beads and two blue beads. How many patterns are there?
 - (A) 4
 - **(B)** 16
 - **©** 5
 - (**D**) 10
- 11. Multi-Step Lin makes a tile design with 24 tiles. Half are red and half are blue. He takes away 4 red tiles. How many red tiles are in the design now?
 - \bigcirc 20
 - **B** 8
 - **©** 12
 - **(D)** 28

Homework and Practice



Also 3.4.F, 3.5.B, 3.5.D

MATHEMATICAL PROCESSES 3.1.A, 3.1.E, 3.1.F

Name _____

12.2 Divide by 10

Use repeated subtraction or a number line to divide.

1.
$$60 \div 10 =$$

2.
$$40 \div 10 =$$

Problem Solving (Real World

Use the pictograph for 3-5.

- 3. Write a division sentence to show how many packs of sports cards Luke has.
- 4. Joanna has 40 sports cards. Write a division sentence to show how many packs of sports cards she has.

Pack of	Sports Cards
is (3)/(5)	Number of Packs
Luke	
Mavis	
Hakim	
Key: Ea	ach = 10 cards.

5. Write a division sentence to show how many packs of sports cards Luke and Mavis have in all. **Explain**.

- 6. Walter has 80 pennies. He arranges the pennies in stacks of 10. How many stacks of pennies does Walter have?
 - (A) 10
 - **(B)** 90
 - **©** 70
 - **D** 8
- 8. There are 70 pieces of chalk in a box. If each of 10 students gets an equal number of chalk pieces, how many pieces of chalk does each student get?
 - **(A)** 80
 - (B) 10
 - **(C)** 7
 - **(D)** 8
- 10. Multi-Step Peyton has 32 cubes. Myra has 18 cubes. If both students use all of the cubes to make trains with 10 cubes, how many trains can they make?
 - **(A)** 3
 - **B** 5
 - **(C)** 50
 - **D** 4

- 7. There are 40 students going on a class trip. Each van seats 10 students. How many vans are needed for the class trip?
 - (A) 40
 - (B) 4
 - **(C)** 3
 - **(D)** 5
- 9. Jaquinta wants to read a book with 60 pages. If she reads 10 pages each day, how many days will it take Jaquinta to read the whole book?
 - (A) 10
 - (B) 50
 - **(C)** 5
 - **(D)** 6
- 11. Multi-Step Roshan has 37 dimes. If she makes stacks of 10 coins, how many coins will Roshan have left over?
 - A) 3
 - **B** 27
 - © 7
 - (**D**) 4

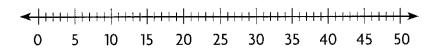
Homework and Practice

Name _____

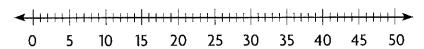
12.3 Divide by 5

Use count up or count back on a number line to solve.

1.
$$30 \div 5 =$$



2.
$$45 \div 5 =$$

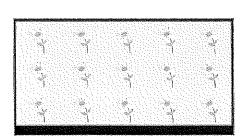


Problem Solving



- 3. A librarian has 35 books on a cart. He evenly separates the books on five shelves. How many books are on each shelf?
- 4. There are 25 paint cans. If the art teacher puts five cans in each box, how many boxes does she need?
- 5. Marky picks some flowers. Write a division problem that can be solved using the picture of the flowers. Then solve the problem.

Pose a problem.



Solve your problem.

-	

1	
1	
•	

- 6. Dikembe has 25 toy boats. He puts them in groups of 5. How many boats are in each group?
 - **(A)** 5
 - **B** 6
 - **©** 20
 - (D) 10

- 7. Jeri pays \$30 for CDs. Each CD costs \$5. How many CDs does Jeri buy?
 - \bigcirc 5
 - **(B)** 6
 - **(C)** 25
 - **(D)** 15
- 8. Damian has 20 crayons. There are 5 crayons in each box. How many boxes of crayons does Damian have?
 - **(A)** 5
 - **B** 4
 - **(C)** 15
 - (**D**) 10

- 9. A group of 45 people go camping. Each tent sleeps 5 people. How many tents will the campers need?
 - \bigcirc 7
 - **B** 8
 - **©** 9
 - **(D)** 50
- 10. Multi-Step Maxine has 15 pennies and 25 nickels. She puts the coins into stacks of 5. How many stacks of coins does she make?
 - \bigcirc 5
 - **B** 8
 - **(C)** 3
 - **D** 9

- 11. Multi-Step There are 17 boys and 13 girls in gym class. They are in 5 equal teams. How many students are on each team?
 - **A** 10
 - **B** 5
 - **©** 30
 - **D** 6

12.4 Divide by 3

Circle groups of 3.

1. Find
$$15 \div 3$$
.



2. Find
$$9 \div 3$$
.



Find the quotient.

4.
$$= 27 \div 3$$

5.
$$24 \div 3 =$$

Problem Solving



Use the table for 6-8.

6. Granola bars are in equal groups on 3 trays. Write a division equation that shows how many granola bars are on each tray.

Food F	air Snacks
Snack	Number of Each
Muffins	15
Granola Bars	27
Apple Tarts	24

- 7. Muffins and apple tarts are each served on trays in equal groups of 3. How many more trays are needed for the apple tarts than the muffins? Explain.
- 8. What if 9 more muffins were added to the Food Fair Snacks table? How many muffins would be on 3 trays?

- 9. There are 18 students in music class. The teacher puts the students into 3 equal groups. How many students are in each group?
 - **(A)** 5
 - **B** 15
 - **©** 6
 - **(D)** 21

- 10. Mr. Martin has 30 desks in his classroom. He arranges the desks into 3 equal rows. How many desks are in each row?
 - **(A)** 27
 - **B** 33
 - **(C)** 10
 - **(D)** 15
- 11. Kim pays \$15 for 3 boxes of cat food. Each box costs the same amount. How much does each box of cat food cost?
 - **(A)** \$12
 - **B** \$5
 - **©** \$3
 - (D) \$4

- **12.** Cho makes 12 waffles. He puts an equal number of waffles on 3 plates. How many waffles are on each plate?
 - (A) 9
 - **(B)** 15
 - **(C)** 5
 - (**D**) 4
- 13. Multi-Step Jem pastes 21 photos and 15 postcards in a scrap album. She puts 3 on each page. How many pages does Jem fill in the scrap album?
 - **(A)** 7
 - **B** 5
 - (C) 12
 - **(D)** 6

- 14. Multi-Step Blaine makes an array of 12 red squares and 18 blue squares. She puts 3 squares in each row. How many rows does Blaine have in the array?
 - (A) 10
 - **B** 4
 - \bigcirc 6
 - **(D)** 28

Name.

12.5 Divide by 4

Draw tiles to make an array. Find the quotient.

Find the unknown number.

4.
$$28 \div 4 = a$$

5.
$$18 \div 3 = m$$

6.
$$25 \div 5 = d$$

$$a =$$

$$m =$$

$$d =$$

Problem Solving



Use the table for 7-9.

7. Nate arranges the baskets of lettuce into 4 equal rows. How many baskets of lettuce are in each row?

	d Vegetables Number of Baskets
Lettuce	32
Cabbage	12
Broccolli	16

8. Tia arranges the baskets of cabbage in 4 equal rows. She adds another basket to each row. How many baskets are in each row?

of broccon, Exili wants to put mem
in equal rows of 4. Can she do this?
Explain.
•

9. The farm stand gets 2 more baskets

of broccoli Frin wants to nut them

- 10. Mr. Benz arranges 24 music stands in class. He puts the stands in 4 equal rows. How many music stands are in each row?
 - **(A)** 6
 - **B** 8
 - **(C)** 20
 - **(D)** 7

- 11. There are 36 members in a marching band. They march in 4 equal rows. How many band members are in each row?
 - **(A)** 32
 - **(B)** 8
 - **(C)** 7
 - **(D)** 9
- **12.** Evan spends \$16 on 4 books. Each book costs the same amount. How much does each book cost?
 - **(A)** \$12
 - **B**) \$4
 - **©** \$5
 - **(D)** \$6

- 13. There are 20 children at a party. The children are seated in equal groups at 4 tables. How many children are at each table?
 - A 24
 - **B** 6
 - **©** 5
 - **D** 16
- 14. Multi-Step Monty has 16 toy cars in 4 equal groups and 24 toy boats in 3 equal groups. How many more toy boats are in each group than toy cars?
 - (A) 8
 - **B** 12
 - **©** 4
 - **(D)** 6

- 15. Multi-Step Debra has 24 books in 4 equal piles and 20 magazines in 4 equal piles. If you stacked a pile of magazines on a pile of books, how many are in the pile?
 - \bigcirc 6
 - **B**) 7
 - **(C)** 8
 - (**D**) 11

Homework and Practice

Name _____

13.1 Divide by 6

Find the unknown number.

1.
$$z = 48 \div 6$$

$$z =$$

2.
$$36 \div 6 = 6$$

4.
$$18 \div ___ = 3$$

7. $12 \div _{} = 2$

5.
$$35 \div _{---} = 7$$

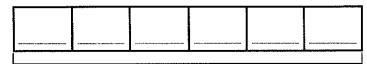
3.
$$60 \div 6 = p$$

9.
$$15 \div _{---} = 5$$

Problem Solving



- 10. Chantell buys 36 apples. She keeps 6 for herself. How many apples can she give to each of 6 neighbors if each person gets the same number of apples?
- 11. Andre has 21 tomato plants. He gives 3 to a friend, then plants the rest in 6 equal rows. How many tomato plants are in each row?
- 12. Jake has 42 baseball cards that he wants to share equally with himself and 5 friends. How many cards will each person get? Write a division sentence to solve the problem.
- 13. Write and solve a word problem for the strip diagram.



24

- 14. There are 54 people going on a rafting trip. Each raft holds 6 people. How many rafts are needed for the trip?
 - **(A)** 8
 - **B** 6
 - © 9
 - **(D)** 7
- 16. There are 30 scouts marching in a parade. The scout troop marches in equal rows of 5. How many rows of scouts are in the parade?
 - **(A)** 6
 - **B** 7
 - **©** 5
 - **D** 8
- 18. Multi-Step Tanya bakes 10 trays of 6 muffins. She keeps 1 tray for herself and gives an equal number away to 6 friends. How many muffins does Tanya share with each friend?
 - **(A)** 9
 - **B** 20
 - **©** 6
 - **(D)** 16

- 15. There are 24 puppies at the dog show. They compete in equal groups of 4. How many puppies are in each group?
 - (A) 20
 - (B) 28
 - **(C)** 6
 - (**D**) 8
- 17. A vegetable stand has 42 baskets of different vegetables. The baskets are set up in 6 equal rows. How many baskets are in each row?
 - **(A)** 5
 - **B** 7
 - © 6
 - (**D**) 8
- 19. Multi-Step Dwayne has
 15 crackers. He keeps 3 for himself
 and gives an equal amount to Jan
 and Ling. How many crackers do Jan
 and Ling each get?
 - \bigcirc 6
 - **B** 5
 - © 4
 - **D** 3

13.2 Divide by 7

Find the unknown factor and quotient.

1.
$$7 \times _{--} = 21$$

$$21 \div 7 =$$

2.
$$7 \times _{---} = 56$$

$$56 \div 7 =$$

Find the unknown number.

3.
$$63 \div 7 =$$

6.
$$70 \div = 10$$

8.
$$\underline{} = 21 \div 7$$

Problem Solving (R



9. Regina has 28 beads. She puts them into 7 equal groups to make a design. How many beads are in each group?

Complete the bar model to solve the problem.



28 beads

There are _____ beads in each group.

- **10.** What is a related multiplication fact that could solve the problem?
- 11. Mick has 56 counters. He can divide 56 into 7 equal groups. How else can Mick break apart the 56 counters into equal groups of 7?



Fill in the bubble completely to show your answer.

- 12. Nyala has 63 paper flowers. She makes 7 bunches of flowers as centerpieces. Each centerpiece has the same number of flowers. How many flowers are in each centerpiece?
 - **(A)** 7
 - 8
 - 6
 - (D) 9

- rows of 7. In how many rows are the students sitting? 7
 - 6
 - 49
 - 35
- 14. A chef uses 49 pounds of beef to make 7 pots of chili. If each pot has the same amount of beef, how many pounds of beef are in each pot?
 - 8 pounds
 - (B) 6 pounds
 - 7 pounds
 - **(D)** 9 pounds

15. Hank uses 35 potatoes to make 7 bowls of potato salad. Each bowl has an equal number of potatoes. How many potatoes are in each bowl?

13. A group of 42 students are at a

puppet show. They sit in equal

- (A) 6
- **(B)** 5
- 7
- (D)
- 16. Multi-Step Ed has 42 red beads and 28 blue beads. He uses an equal number of all the beads to decorate 7 clay sculptures. How many beads are on each sculpture?
 - \bigcirc 3
 - **(B)** 10
 - 4
 - **(D)** 8

- 17. Multi-Step There are 14 adults and 42 students in the lunchroom. If they sit in equal groups at 7 tables, how many people are at each table?
 - (A) 9

13.3 Divide by 8

Find the unknown factor and quotient.

1.
$$8 \times _{\underline{}} = 48$$

2.
$$\underline{\hspace{1cm}} \times 4 = 32$$

3.
$$64 \div 8 =$$

Find the unknown number.

5.
$$16 \div 8 =$$

6.
$$40 \div ___ = 5$$

8. ____ =
$$80 \div 8$$

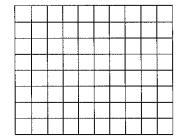
Problem Solving (world

9. Ted has a strip of cloth that is 16 feet long. If he cuts the cloth in pieces that are 2 feet long to make kite tails, how many pieces will he have?

Shade the grid to solve $16 \div 2$.

Ted will have ____ pieces.

Write the equation:



10. There are 40 people going to a baseball game. There are only three vans available that seat 8 people each. The other people will ride in cars that seat 4. How many cars are needed so all 40 people have a ride to the baseball game? Explain.

11. At the baseball game, the 40 people sit in rows of 8. How many rows are the people seated in?

- **12.** Bethany makes 48 party favors. If she puts the favors into 8 baskets, how many favors are in each basket?
 - **(A)** 56
 - (B) 40
 - **©** 6
 - **(D)** 5
- 14. Louis has 24 pencils. He has an equal number of red, blue, and yellow pencils. How many pencils of each color does Louis have?
 - **(A)** 3
 - **B** 8
 - © 4
 - **(D)** 6
- 16. Multi-Step Jackie has 15 green tiles and 25 yellow tiles. She divided them equally to decorate 5 plates. How many tiles does she put on each plate?
 - **(A)** 3
 - **B** 7
 - © 8
 - **(D)** 5

- 13. Wes has 56 balloons. He uses 8 balloons to make an animal shape. How many animals can Wes make?
 - (A) 8
 - **B** 7
 - **(C)** 9
 - **(D)** 5
- 15. A teacher puts 64 boxes of school supplies on 8 shelves. If she puts an equal number of boxes on each shelf, how many shelves does she need?
 - **(A)** 7
 - **(B)** 6
 - **(C)** 9
 - (D) 8
- 17. Multi-Step Paco has 40 tulips and 32 daisies. He divides the flowers equally among 8 vases. How many flowers will he put in each vase?
 - (A) 9
 - (B) 7
 - **©** 6
 - (**D**) 8

13.4 Divide by 9

Find the unknown number.

1. ____ =
$$72 \div 9$$

3.
$$= 27 \div 9$$

4.
$$\div 9 = 2$$

6.
$$9 \div _{} = 1$$

Complete the table.

Problem Solving (Red

9. Daryl collects 38 plastic liter bottles and 43 plastic jugs. He divides them equally into 9 recycling bins. How many plastic containers does he put into each bin? Write the steps to solve the problem.

10. Annette has 27 pink buttons, 36 red buttons, and 45 green buttons. How can she sort the buttons into 9 equal piles, so there are the same number of different color buttons in

each pile? Explain.



- 11. Jamal has 63 marbles. For every 8 blue marbles, there is 1 red marble. How many red marbles does Jamal have?
 - **(A)** 5
 - **B** 6
 - **©** 9
 - **(D)** 7
- 13. Carla has a coin collection of 54 coins. She puts 9 coins into each page of a coin book. How many pages does Carla fill in her coin book?
 - **(A)** 9
 - **B** 7
 - **©** 6
 - **(D)** 8
- 15. Multi-Step Suzie has 36 daffodils, 27 tulips, and 18 roses. She wants to make 9 bouquets with an equal number of flowers. How many flowers will Suzie put into each bouquet?
 - **(A)** 9
 - **B** 2
 - **(C)** 3
 - **(D)** 4

- **12.** Anquan made 45 party favors. He puts an equal number of favors on 9 tables. How many party favors are on each table?
 - **A**) 6
 - **B** 5
 - **(C)** 7
 - (**D**) 8
- 14. There are 9 people at the diner.

 Their bill totals \$72. They split the bill into equal amounts. How much money does each person spend?
 - **(A)** \$8
 - (**B**) \$9
 - **©** \$6
 - **(D)** \$7
- 16. Multi-Step Tang buys 27 large notepads and 32 small notepads. The large notepads come in packs of 9. The small notepads come in packs of 4. How many packs of notepads does Tang buy in all?
 - **(A)** 12
 - **(B)** 3
 - **©** 8
 - **(D)** 11

Homework and Practice

Name

13.5 PROBLEM SOLVING • Two-Step Problems

Problem Solving



1.	Mr. Tran made a list of some items he sells in his store. He has
	5 umbrellas, 2 beach balls, 12 beach chairs, and 9 sunglasses.
	There are some beach towels stacked equally on two shelves.
	Mr. Tran determined that there are 46 items. How many beach
	towels are on each shelf? Describe how to solve the problem.
	•

- 2. Nickolas spends \$17 to buy 4 cartons of yogurt and 3 bottles of juice. If each carton of yogurt costs \$2, how much does each bottle of juice cost? Explain.
- 3. Karina has 55 marbles sorted equally into 5 bags. She gives her friend 10 marbles by pulling them equally from each bag. How many marbles does have now in each of her 5 bags? Write equations to solve.

- 4. Roberto buys 6 snack packages for his dogs. Each package has 4 snacks. He uses all of the snacks to give 3 snacks to each of his dogs. How many dogs does Roberto have?
- 5. Melinda has a collection of 54 seashells. She find 27 more shells. If Melinda wants to display her shells equally on 9 shelves, how many shells will she put on each shelf? Write equations to solve.

- 6. **Multi-Step** There are 22 adults and 41 children at a picnic. They sit at picnic tables in equal groups of 9. How many picnic tables are used?
 - (A) 8
 - **(B)** 7
 - **(C)** 9
 - **(D)** 6
- 8. Multi-Step Drew has 2 boxes of oatmeal. Each box has 9 packages of oatmeal in it. Drew cooks 2 packages of oatmeal every day. How many days will the oatmeal last?
 - (A) 10
 - **B** 13
 - **(C)** 18
 - (**D**) 9
- 10. Multi-Step Arnie buys 5 cartons of yogurt and 1 gallon of milk for \$21. The milk costs \$6. How much does each carton of yogurt cost?
 - (A) \$12
 - **B** \$5
 - © \$3
 - **(D)** \$15

- 7. Multi-Step Craig buys 4 bags of dog treats for \$3 each. He also buys 6 bags of cat treats for \$4 each. How much money does Craig spend?
 - **(A)** \$7
 - **(B)** \$24
 - **(C)** \$12
 - **(D)** \$36
- 9. Multi-Step Mrs. Johnson bought her nephews 30 pairs of socks. The socks are sold with three pairs in a package. If she gives two packages to each nephew, how many nephews is she giving socks to?
 - **(A)** 30
 - **B** 5
 - **(C)** 10
 - (**D**) 8
- 11. Multi-Step There are 24 boys and 32 girls at the spelling bee. They are grouped into teams of 8. How many teams are formed?
 - **(A)** 3
 - **B** 7
 - **(C)** 4
 - **(D)** 9