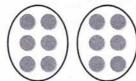
Divide by 2



COMMON CORE STANDARD—3.OA.A.3Represent and solve problems involving multiplication and division.

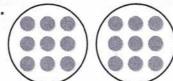
Write a division equation for the picture.

1.



$$12 \div 2 = 6 \text{ or}$$
 $12 \div 6 = 2$

2.









Find the quotient. You may want to draw a quick picture to help.

4.
$$= 14 \div 2$$

6.
$$16 \div 2 =$$

Problem Solving



- 7. Mr. Reynolds, the gym teacher, divided a class of 16 students into 2 equal teams. How many students were on each team?
- 8. Sandra has 10 books. She divides them into groups of 2 each. How many groups can she make?
- 9. WRITE Math Explain how to divide an amount by 2. Use the terms dividend, divisor, and quotient.

- 1. Ava has 12 apples and 2 baskets. She puts an equal number of apples in each basket. How many apples are in a basket?
- 2. There are 8 students singing a song in the school musical. Ms. Lang put the students in 2 equal rows. How many students are in each row?

Spiral Review (3.0A.A.2, 3.0A.A.3, 3.0A.D.9)

3. Find the product.

 2×6

4. Jayden plants 24 trees. He plants the trees in 3 equal rows. How many trees are in each row?

- Describe a pattern in the numbers.
 9, 12, 15, 18, 21, 24
- **6.** A tricycle has 3 wheels. How many wheels are there on 4 tricycles?



Divide by 10

Find the unknown factor and quotient.

1.
$$10 \times 2 = 20$$
 $20 \div 10$

Find the quotient.

8.
$$50 \div 10 =$$

Problem Solving (Red



- 13. Pencils cost 10¢ each. How many pencils can Brent buy with 90¢?
- 14. Mrs. Marks wants to buy 80 pens. If the pens come in packs of 10, how many packs does she need to buy?
- 15. **WRITE** Math Write and solve a word problem that involves dividing by 10.

- 1. Gracie uses 10 beads on each necklace she makes. She has 60 beads to use. How many necklaces can Gracie make?
- 2. A florist arranges 10 flowers in each vase. How many vases does the florist need to arrange 40 flowers?

Spiral Review (3.0A.A.2, 3.0A.A.3, 3.0A.A.4, 3.NBT.A.3)

3. What is the unknown factor?

4. Aspen Bakery sold 40 boxes of rolls in one day. Each box holds 6 rolls. How many rolls did the bakery sell?

$$7 \times p = 14$$

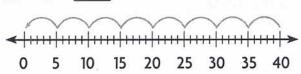
- 5. Mr. Samuels buys a sheet of stamps. There are 4 rows with 7 stamps in each row. How many stamps does Mr. Samuels buy?
- 6. There are 56 students going on a field trip to the science center. The students tour the center in groups of 8. How many groups of students are there?

Divide by 5

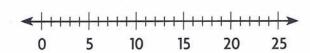
COMMON CORE STANDARD—3.OA.A.3 Represent and solve problems involving multiplication and division.

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

1.
$$40 \div 5 = 8$$



2.
$$25 \div 5 =$$



Find the quotient.

3.
$$_{--} = 10 \div 5$$

3. ___ =
$$10 \div 5$$
 4. ___ = $30 \div 5$ 5. $14 \div 2 =$ ___ 6. $5 \div 5 =$ ___

6.
$$5 \div 5 =$$

7. ___ =
$$0 \div 5$$

8.
$$20 \div 5 =$$

9.
$$25 \div 5 =$$

Problem Solving Reg



- 15. A model car maker puts 5 wheels in each kit. A machine makes 30 wheels at a time. How many packages of 5 wheels can be made from the 30 wheels?
- 16. A doll maker puts a small bag with 5 hair ribbons inside each box with a doll. How many bags of 5 hair ribbons can be made from 45 hair ribbons?
- 17. WRITE Math Write about which method you prefer to use to divide by 5—counting up, counting back on a number line, or dividing by 10, and then doubling the quotient. Explain why.

- 1. A model train company puts 5 boxcars with each train set. How many sets can be completed using 35 boxcars?
- 2. A machine makes 5 buttons at a time. Each doll shirt gets 5 buttons. How many doll shirts can be finished with 5 buttons?

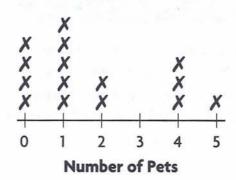
Spiral Review (3.0A.A.3, 3.MD.B.4)

- 3. Julia earns \$5 each day running errands for a neighbor. How much will Julia earn if she runs errands for 6 days in one month?
- 4. Marcus has 12 slices of bread. He uses 2 slices of bread for each sandwich. How many sandwiches can Marcus make?

Use the line plot for 5-6.

5. How many students have no pets?

6. How many students answered the question "How many pets do you have?"



Practice and Homework Lesson 7.4

Divide by 3

Find the quotient. Draw a quick picture to help.

1.
$$12 \div 3 = 4$$



2.
$$24 \div 3 =$$

3. ___ =
$$6 \div 3$$

4.
$$40 \div 5 =$$

Find the quotient.

5.
$$= 15 \div 3$$

6.
$$= 21 \div 3$$

7.
$$16 \div 2 =$$

9.
$$0 \div 3 =$$

10.
$$9 \div 3 =$$

11.
$$\underline{} = 30 \div 3$$

9.
$$0 \div 3 =$$
 10. $9 \div 3 =$ **11.** $_{--} = 30 \div 3$ **12.** $_{--} = 12 \div 4$

Problem Solving (Red

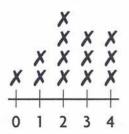


- **17**. The principal at Miller Street School has 12 packs of new pencils. She will give 3 packs to each third-grade class. How many third-grade classes are there?
- 18. Mike has \$21 to spend at the mall. He spends all of his money on bracelets for his sisters. Bracelets cost \$3 each. How many bracelets does he buy?
- 19. **WRITE** Math Explain how to divide an amount by 3.

- 1. There are 18 counters divided equally among 3 groups. How many counters are in each group?
- 2. Josh has 27 signed baseballs. He places the baseballs equally on 3 shelves. How many baseballs are on each shelf?

Spiral Review (3.0A.A.1, 3.0A.B.5, 3.0A.B.6, 3.MD.B.4)

- 3. Each bicycle has 2 wheels. How many wheels do 8 bicycles have?
- **4.** How many students watch less than 3 hours of TV a day?



Hours Watching TV

5. Complete the number sentence to show an example of the Distributive Property.

$$3 \times 6 =$$

6. What unknown number completes the equations?

$$3 \times \blacksquare = 21$$
 $21 \div 3 = \blacksquare$

Name _____

Practice and Homework Lesson 7.5

Divide by 4

Draw tiles to make an array. Find the quotient.

1.
$$\underline{4} = 16 \div 4$$



2.
$$20 \div 4 =$$

1.
$$4 = 16 \div 4$$
 2. $20 \div 4 =$ 3. $12 \div 4 =$ 4. $10 \div 2 =$

4.
$$10 \div 2 =$$

Find the quotient.

5.
$$24 \div 3 =$$

6.
$$= 8 \div 2$$

5.
$$24 \div 3 =$$
 ____ 8. ___ = $28 \div 4$

8. ____ =
$$28 \div 4$$

11.
$$4)24$$

Find the unknown number.

13.
$$20 \div 5 = a$$

14.
$$32 \div 4 = p$$

13.
$$20 \div 5 = a$$
 14. $32 \div 4 = p$ **15.** $40 \div 10 = 10$ **16.** $18 \div 3 = x$

16.
$$18 \div 3 = x$$

Problem Solving (Red



- 17. Ms. Higgins has 28 students in her gym class. She puts them in 4 equal groups. How many students are in each group?
- 18. Andy has 36 CDs. He buys a case that holds 4 CDs in each section. How many sections can he fill?

19. WRITE Math Write and solve a word problem that involves dividing by 4.

- 1. Darion picks 16 grapefruits off a tree in his backyard. He puts 4 grapefruits in each bag. How many bags does he need?
- 2. Tori has a bag of 32 markers to share equally among 3 friends and herself. How many markers will Tori and each of her friends get?

Spiral Review (3.0A.A.2, 3.0A.B.5, 3.0A.C.7, 3.0A.D.9)

3. Find the product.

4. Describe a pattern below.

8, 12, 16, 20, 24, 28

 3×7

5. Use the Commutative Property of Multiplication to write a related number sentence.

 $4 \times 5 = 20$

6. Jasmine has 18 model horses. She places the model horses equally on 3 shelves. How many model horses are on each shelf?

Name ____

Practice and Homework Lesson 7.6

Divide by 6

COMMON CORE STANDARD—3.OA.C.7 Multiply and divide within 100.

Find the unknown factor and quotient.

1.
$$6 \times _{\underline{7}} = 42$$
 $42 \div 6 = _{\underline{7}}$

$$42 \div 6 = _{7}$$

$$24 \div 4 =$$

$$54 \div 6 =$$

Find the quotient.

6.
$$48 \div 6 =$$

7. ___ =
$$6 \div 6$$

5.
$$= 24 \div 6$$
 6. $48 \div 6 =$ 7. $\underline{\hspace{1cm}} = 6 \div 6$ 8. $12 \div 6 =$ $\underline{\hspace{1cm}}$

10.
$$6)\overline{54}$$
 11. $6)\overline{30}$ **12.** $1)\overline{6}$

Find the unknown number.

13.
$$p = 42 \div 6$$

13.
$$p = 42 \div 6$$
 14. $18 \div 3 = q$ **15.** $r = 30 \div 6$

15.
$$r = 30 \div 6$$

16.
$$60 \div 6 = s$$

Problem Solving



- 17. Lucas has 36 pages of a book left to 18. Juan has \$24 to spend at the read. If he reads 6 pages a day, how many days will it take Lucas to finish the book?
- bookstore. If books cost \$6 each, how many books can he buy?
- 19. WRITE Math Which strategy would you use to divide $36 \div 6$? Explain why you chose that strategy.

- 1. Ella earned \$54 last week babysitting. She earns \$6 an hour. How many hours did Ella babysit last week?
- 2. What is the unknown factor and quotient?

$$6 \times \blacksquare = 42$$
 $42 \div 6 = \blacksquare$

Spiral Review (3.0A.A.1, 3.0A.A.2, 3.0A.C.7, 3.0A.D.8)

- 3. Coach Clarke has 48 students in his P.E. class. He places the students in teams of 6 for an activity. How many teams can Coach Clarke make?
- 4. Each month for 7 months, Eva reads 3 books. How many more books does she need to read before she has read 30 books?

- 5. Each cow has 4 legs. How many legs do 5 cows have?
- 6. Find the product.

 3×9

Divide by 7

Find the unknown factor and quotient.

1.
$$7 \times _{\underline{6}} = 42$$
 $42 \div 7 = _{\underline{6}}$

$$42 \div 7 = 6$$

2.
$$7 \times \underline{\hspace{1cm}} = 35$$
 $35 \div 7 = \underline{\hspace{1cm}}$
4. $5 \times \underline{\hspace{1cm}} = 20$ $20 \div 5 = \underline{\hspace{1cm}}$

$$35 \div 7 =$$

$$7 \div 7 =$$

$$20 \div 5 =$$

Find the quotient.

9.
$$_{--} = 35 \div 7$$

10.
$$0 \div 7 =$$

11.
$$= 56 \div 7$$

9. ___ =
$$35 \div 7$$
 10. $0 \div 7 =$ ___ 11. ___ = $56 \div 7$ 12. $32 \div 8 =$ ___

Find the unknown number.

13.
$$56 \div 7 = e$$

13.
$$56 \div 7 = e$$
 14. $k = 32 \div 4$ **15.** $g = 49 \div 7$ **16.** $28 \div 7 = s$

15.
$$g = 49 \div 7$$

16.
$$28 \div 7 = s$$

$$k = \underline{\hspace{1cm}}$$

Problem Solving (Real



- 17. Twenty-eight players sign up for basketball. The coach puts 7 players on each team. How many teams are there?
- 18. Roberto read 42 books over 7 months. He read the same number of books each month. How many books did Roberto read each month?
- 19. WRITE Math Describe how to find the number of weeks equal to 56 days.

- 1. Elliot earned \$49 last month walking his neighbor's dog. He earns \$7 each time he walks the dog. How many times did Elliot walk his neighbor's dog last month?
- 2. What is the unknown factor and quotient?

$$7 \times 1 = 63$$

$$63 \div 7 = 10$$

Spiral Review (3.0A.A.3, 3.0A.B.5, 3.0A.B.6, 3.0A.C.7)

- 3. Maria puts 6 strawberries in each smoothie she makes. She makes 3 smoothies. Altogether, how many strawberries does Maria use in the smoothies?
- 4. Kaitlyn makes 4 bracelets. She uses 8 beads for each bracelet. How many beads does she use?

5. What is the unknown factor?

$$2 \times 5 = 5 \times \blacksquare$$

6. What division equation is related to the following multiplication equation?

$$3 \times 4 = 12$$

Name _____

Practice and Homework Lesson 7.8



COMMON CORE STANDARD—3.OA.A.3, 3.OA.A.4 Represent and solve problems involving multiplication and division.

Divide by 8

Find the unknown factor and quotient.

1.
$$8 \times 4 = 32$$
 $32 \div 8 = ____$

$$27 \div 3 =$$

$$8 \div 8 =$$

Find the quotient.

5. ____ =
$$24 \div 8$$

5. ____ =
$$24 \div 8$$
 6. $40 \div 8 =$ ____ 7. ___ = $56 \div 8$ 8. $14 \div 2 =$ ____

7. ____ =
$$56 \div 8$$

8.
$$14 \div 2 =$$

Find the unknown number.

13.
$$72 \div \blacksquare = 9$$
 14. $25 \div \blacksquare = 5$ **15.** $24 \div a = 3$ **16.** $k \div 10 = 8$

15.
$$24 \div a = 3$$

16.
$$k \div 10 = 8$$

$$k = \underline{\hspace{1cm}}$$

Problem Solving World



- 17. Sixty-four students are going on a field trip. There is 1 adult for every 8 students. How many adults are there?
- 18. Mr. Chen spends \$32 for tickets to a play. If the tickets cost \$8 each, how many tickets does Mr. Chen buy?
- 19. WRITE Math Describe which strategy you would use to divide 48 by 8.



Mrs. Wilke spends \$72 on pies for arh nie costs \$8.

the school f How many pies does Mrs. Wilke buy for the school fair?

2. Find the unknown factor and quotient.

Spiral Review (3.0A.A.3, 3.0A.A.4, 3.0A.B.5)

3. Find the product.

 $(3 \times 2) \times 5$

4. Use the Commutative Property of Multiplication to write a related multiplication sentence.

$$9 \times 4 = 36$$

5. Find the unknown factor.

414

 $8 \times 1 = 32$

6. What multiplication sentence represents the array?

Name _____

Divide by 9

Find the quotient.

1.
$$\underline{4}$$
 = 36 ÷ 9

2.
$$30 \div 6 =$$

3.
$$\underline{} = 81 \div 9$$

1.
$$\underline{4} = 36 \div 9$$
 2. $30 \div 6 = \underline{} = 81 \div 9$ **4.** $27 \div 9 = \underline{} = \underline{}$

5.
$$9 \div 9 =$$

6. ____ =
$$63 \div 7$$

7.
$$36 \div 6 =$$

5.
$$9 \div 9 =$$
 6. $= 63 \div 7$ **7.** $36 \div 6 =$ **8.** $= 90 \div 9$

11.
$$7)\overline{49}$$
 12. $9)\overline{45}$

Find the unknown number.

13.
$$48 \div 8 = g$$
 14. $s = 72 \div 9$ **15.** $m = 0 \div 9$ **16.** $54 \div 9 = n$

14.
$$s = 72 \div 9$$

15.
$$m = 0 \div 9$$

16.
$$54 \div 9 = n$$

$$n = _{---}$$

Problem Solving (World



- 17. A crate of oranges has trays inside that hold 9 oranges each. There are 72 oranges in the crate. If all trays are filled, how many trays are there?
- 18. Van has 45 new baseball cards. He puts them in a binder that holds 9 cards on each page. How many pages does he fill?

19. WRITE Math Explain which division facts were the easiest for you to learn.

- 1. Darci sets up a room for a banquet. She has 54 chairs. She places 9 chairs at each table. How many tables have 9 chairs?
- 2. Mr. Robinson sets 36 glasses on a table. He puts the same number of glasses in each of 9 rows. How many glasses does he put in each row?

Spiral Review (3.0A.A.2, 3.0A.C.7, 3.0A.D.8)

- 3. Each month for 9 months, Jordan buys 2 sports books. How many more sports books does he need to buy before he has bought 25 sports books?
- 4. Find the product.

8

 $\times 7$

- 5. Adriana made 30 pet collars to bring to the pet fair. She wants to display 3 pet collars on each hook. How many hooks will Adriana need to display all 30 pet collars?
- 6. Carla packs 4 boxes of books. Each box has 9 books. How many books does Carla pack?

Houghton Mifflin Harcourt Publishing Company

Name _____

Problem Solving • Two-Step Problems

Practice and Homework Lesson 7.10



COMMON CORE STANDARD—3.OA.D.8Solve problems involving the four operations, and identify and explain patterns in arithmetic.

Solve the problem.

1. Jack has 3 boxes of pencils with the same number of pencils in each box. His mother gives him 4 more pencils. Now Jack has 28 pencils. How many pencils are in each box?

Think: I can start with 28 counters and act out the problem.

8 pencils

- 2. The art teacher has 48 paintbrushes. She puts 8 paintbrushes on each table in her classroom. How many tables are in her classroom?
- 3. Ricardo has 2 cases of video games with the same number of games in each case. He gives 4 games to his brother. Ricardo has 10 games left. How many video games were in each case?
- **4.** Patty has \$20 to spend on gifts for her friends. Her mother gives her \$5 more. If each gift costs \$5, how many gifts can she buy?
- 5. Joe has a collection of 35 DVD movies. He received 8 of them as gifts. Joe bought the rest of his movies over 3 years. If he bought the same number of movies each year, how many movies did Joe buy last year?
- 6. WRITE Math Write a division word problem and explain how to solve it by acting it out.

Lesson Check (3.OA.D.8)

- Gavin saved \$16 to buy packs of baseball cards. His father gives him \$4 more. If each pack of cards costs \$5, how many packs can Gavin buy?
- 2. Chelsea buys 8 packs of markers. Each pack contains the same number of markers. Chelsea gives 10 markers to her brother. Then, she has 54 markers left. How many markers were in each pack?

Spiral Review (3.0A.A.1, 3.0A.A.3, 3.0A.A.4, 3.0A.D.8)

- **3.** Each foot has 5 toes. How many toes do 6 feet have?
- 4. Each month for 5 months, Sophie makes 2 quilts. How many more quilts does she need to make before she has made 16 quilts?

- 5. Meredith practices the piano for 3 hours each week. How many hours will she practice in 8 weeks?
- 6. Find the unknown factor.

 $9 \times 1 = 36$



Order of Operations

COMMON CORE STANDARD—3.OA.D.8Solve problems involving the four operations, and identify and explain patterns in arithmetic.

Write *correct* if the operations are listed in the correct order. If not correct, write the correct order of operations.

1.
$$45 - 3 \times 5$$
 subtract, multiply

2.
$$3 \times 4 \div 2$$
 divide, multiply

multiply, subtract

3.
$$5 + 12 \div 2$$
 divide, add

4.
$$7 \times 10 + 3$$
 add, multiply

Follow the order of operations to find the unknown number.

5.
$$6 + 4 \times 3 = n$$

6.
$$8-3+2=k$$

7.
$$24 \div 3 + 5 = p$$

$$k = \underline{\hspace{1cm}}$$

Problem Solving



- 8. Shelley bought 3 kites for \$6 each. She gave the clerk \$20. How much change should Shelley get?
- 9. Tim has 5 apples and 3 bags with 8 apples in each bag. How many apples does Tim have in all?
- 10. WRITE Math Give a description of the rules for the order of operations in your own words.

- 1. Natalie is making doll costumes. Each costume has 4 buttons that cost 3¢ each and a zipper that costs 7¢. How much does she spend on buttons and a zipper for each costume?
- 2. Leonardo's mother gave him 5 bags with 6 flower bulbs in each bag to plant. He has planted all except 3 bulbs. How many flower bulbs has Leonardo planted?

Spiral Review (3.0A.C.7, 3.0A.D.9, 3.NBT.A.3)

- 3. Each story in Will's apartment building is 9 feet tall. There are 10 stories in the building. How tall is the apartment building?
- 4. Describe a pattern in the table.

Tables	1	2	3	4
Chairs	4	8	12	16

- 5. For decorations, Meg cut out 8 groups of 7 snowflakes each. How many snowflakes did Meg cut out in all?
- 6. A small van can hold 6 students. How many small vans are needed to take 36 students on a field trip to the music museum?

