

**On Your Own****Find the unknown number.**

10.  $\square = 9 \times 2$

$\square = \underline{\hspace{2cm}}$

11.  $28 = 4 \times m$

$m = \underline{\hspace{2cm}}$

12.  $y \times 3 = 9$

$y = \underline{\hspace{2cm}}$

13.  $11 \times 9 = g$

$g = \underline{\hspace{2cm}}$

14.  $a = 6 \times 4$

$a = \underline{\hspace{2cm}}$

15.  $7 = 7 \times n$

$n = \underline{\hspace{2cm}}$

16.  $w \times 3 = 15$

$w = \underline{\hspace{2cm}}$

17.  $\star = 8 \times 6$

$\star = \underline{\hspace{2cm}}$

**MTR** Find the unknown number.

18.  $3 \times 12 = k \times 9$

$k = \underline{\hspace{2cm}}$

19.  $4 \times y = 2 \times 6$

$y = \underline{\hspace{2cm}}$

20.  $5 \times g = 36 - 6$

$g = \underline{\hspace{2cm}}$

21.  $6 \times 4 = \square \times 3$

$\square = \underline{\hspace{2cm}}$

22.  $9 \times d = 70 + 2$

$d = \underline{\hspace{2cm}}$

23.  $8 \times h = 60 - 4$

$h = \underline{\hspace{2cm}}$

24. Invitations cost \$3 for a pack of 8. Lori gives the cashier \$20 to buy invitations and gets \$11 in change. How many packs of invitations does Lori buy? Explain.

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25. Coz and Amelia each make a tile design with 36 tiles. Coz puts his in 4 rows. Amelia puts hers in 6 rows. How many more tiles are in each of Coz's rows than Amelia's?

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## Share and Show

Math Board

1. Mac bought 4 packs of toy cars. Then his friend gave him 9 cars. Now Mac has 21 cars. How many cars were in each pack?

Act out the problem by using counters or the picture and by writing equations.

First, subtract the cars Mac's friend gave him.

$$\begin{array}{r}
 \text{total cars} \\
 \downarrow \\
 21
 \end{array}
 -
 \begin{array}{r}
 \text{cars given to Mac} \\
 \downarrow \\
 \underline{\hspace{1cm}} \\
 \underline{\hspace{1cm}}
 \end{array}
 =
 \begin{array}{r}
 c, \text{ cars in 4 packs} \\
 \downarrow \\
 c
 \end{array}$$

$$\begin{array}{r}
 \underline{\hspace{1cm}} \\
 \underline{\hspace{1cm}}
 \end{array}
 =
 \begin{array}{r}
 c
 \end{array}$$

Then, divide to find the number of cars in each pack.

$$\begin{array}{r}
 c, \text{ cars in 4 packs} \\
 \downarrow \\
 12
 \end{array}
 \div
 \begin{array}{r}
 \text{number of packs} \\
 \downarrow \\
 \underline{\hspace{1cm}} \\
 \underline{\hspace{1cm}}
 \end{array}
 =
 \begin{array}{r}
 p, \text{ number in each pack} \\
 \downarrow \\
 p
 \end{array}$$

$$\begin{array}{r}
 \underline{\hspace{1cm}} \\
 \underline{\hspace{1cm}}
 \end{array}
 =
 \begin{array}{r}
 p
 \end{array}$$

So, there were \_\_\_\_\_ cars in each pack.

2. What if Mac bought 8 packs of toy boats, and then he gave his friend 3 boats? If Mac has 13 boats now, how many boats were in each pack?

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## Unlock the Problem

- ✓ Circle the question.
- ✓ Underline the important facts.
- ✓ Choose a strategy you know.



## On Your Own



3. Ryan gave 7 of his model cars to a friend. Then he bought 6 more cars. Now Ryan has 13 cars. How many cars did Ryan start with?

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4. Chloe bought 12 sets of books. Each set has the same number of books. She donated 20 of her books to her school. Now she has 64 books. How many books were in each set?

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5. Hilda cuts a ribbon into 2 equal pieces. Then she cuts 4 inches off one piece. That piece is now 5 inches long. What was the length of the original ribbon?

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6. Teanna has 2 boxes of color pencils. One box has 20 color pencils, and the other box has 16 color pencils. She gives her brother 3 of the color pencils. She wants to put the color pencils that she has left into 3 equal groups. How many color pencils will Teanna put in each group?

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7. **TR** Rose saw a movie, ate lunch, and bought 2 shirts while shopping. The movie cost \$10 and lunch cost \$12. She spent the same amount shopping as she did for the movie and lunch together. If each shirt cost the same amount, how much does one shirt cost? Explain how you solved the problem.

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8. Eleni bought 3 packs of crayons. Each pack contains the same number of crayons. She then found 4 crayons in her desk. Eleni now has 37 crayons. How many crayons were in each pack she bought? Explain how you solved the problem.

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## Show the Math

Demonstrate Your Thinking

# Solve Two-Step Division Problems

Go Online

Interactive Examples

## Solve the problem.

- 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.

- Li writes 9 poems and then 9 more. She gives 6 poems to each of her sisters and has none left. How many sisters does she have?
- 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?
- Haua has \$50 to spend on gifts for her friends. Her mother gives her \$5 more. If each gift costs \$5, how many gifts can she buy?
- Joe has a collection of 35 paintings. He received 8 of them as gifts. Joe bought the rest over 3 years. If he bought the same number of paintings each year, how many paintings did Joe buy last year?

- WRITE** *Math* Write a division word problem and explain how to solve it by *acting it out*.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



8 pencils

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Lesson Check

7. 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?
8. Chelsea buys 8 packs of markers. Each pack contains the same number of markers. Chelsea gives 10 markers to her brother. Then, she has 86 markers left. How many markers were in each pack?

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## Spiral Review

9. Each foot has 5 toes. How many toes do 6 feet have?
10. Each month for 5 months, Sophie makes 2 quilts. How many more quilts does she need to make to have 16 quilts?

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

$$9 \times \blacksquare = 36$$

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Name \_\_\_\_\_

## Chapter Review

1. The camping club wants to rent rafts. Each raft can hold 8 people. Which equation could be used to find how many rafts are needed for 32 people?

(A)  $8 \times 32 = \blacksquare$

(B)  $32 \times \blacksquare = 8$

(C)  $\blacksquare \times 8 = 32$

(D)  $32 \times 8 = \blacksquare$

2. Draw a bar model and write a multiplication expression to represent the comparison *4 times as many as 9*.

### Find the unknown number.

4.  $m \times 5 = 30$

$m = \underline{\hspace{2cm}}$

6.  $20 = 2 \times n$

$n = \underline{\hspace{2cm}}$

8.  $7 = 63 \div y$

$y = \underline{\hspace{2cm}}$

5.  $48 \div \blacksquare = 6$

$\blacksquare = \underline{\hspace{2cm}}$

7.  $p \div 8 = 4$

$p = \underline{\hspace{2cm}}$

9.  $1 \times 10 = \star$

$\star = \underline{\hspace{2cm}}$

For Problems 10 and 11, describe a pattern for the table. Then complete the table.

10.

Weeks	1	2	3	4	5
Days	7	14	21		

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11.

Tickets	2	3	4	5	6
Cost	\$8	\$12	\$16		

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12. Giana says that 33 is an even number. Is she correct? Explain.

- (A) yes; You can make 2 equal groups with one left over.
- (B) yes; You can make 2 equal groups.
- (C) no; You can make 2 equal groups with one left over.
- (D) no; You can make 2 equal groups.

13. List the first five multiples of 9.

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14. Which numbers are a multiple of *oth* 3 and 4? (Hint: There is more than one answer.)

- (A) 12
- (B) 6
- (C) 21
- (D) 36
- (E) 24
- (F) 16
- (G) 20

Name \_\_\_\_\_

15. Derek has 6 dogs. Each dog gets 3 dog biscuits every day. How many biscuits will Dexter need for all of his dogs for Saturday and Sunday?

- (A) 18
- (B) 8
- (C) 16
- (D) 36

16. Brooklyn has 10 dolphin stickers. Jorge's stickers can be represented by  $3 \times 10$ . Which comparison statement describes the expression?

- (A) Brooklyn has 10 more stickers than Jorge.
- (B) Jorge has 3 times as many stickers as Brooklyn.
- (C) Brooklyn has 3 more stickers than Jorge.
- (D) Jorge has 3 fewer stickers than Brooklyn.

17. Explain why 60 is a multiple of 5, 6, 10, and 12. You can write equations as part of your explanation.

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18. Hanya's puppy weighs 23 pounds. If he gains 3 pounds every month for the next five months, how much will the puppy weigh at the end of the fifth month?

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19. Tim describes a pattern. He says the pattern shown in the table is “Add 3.” Is Tim correct? Explain how you know.

<b>Packages</b>	1	2	3	4	5
<b>Markers</b>	4	8	12	16	20

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20. There are 54 students in the marching band. They form equal rows, so that there are no fewer than 5 rows and no more than 10 students in each row. Which is an array that the students could use?

- (A) 6 rows of 9 students                       (C) 10 rows of 5 students  
 (B) 5 rows of 10 students                     (D) 6 rows of 8 students

21. Describe a pattern for this table.

<b>Tanks</b>	3	4	5	6	7
<b>Fish</b>	240	320	400	480	560

Pattern: \_\_\_\_\_

How would the table change if the pattern was “Multiply the number of tanks by 8”? Explain.

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Name \_\_\_\_\_

22. Sally has 4 comic books. Renaldo has 6 comic books. Jay has 2 times as many comic books as Sally and Renaldo combined. Which expression represents the number of comic books Jay has compared to Sally and Renaldo combined?

- (A)  $4 + 6$
- (B)  $2 \times 6$
- (C)  $2 \times 10$
- (D)  $2 \div 10$

23. The camping club rents 4 rafts. How many people can 4 rafts hold?

- (A) 28
- (B) 30
- (C) 42
- (D) 32

Rafts	1	2	3	4
People	8	16	24	■

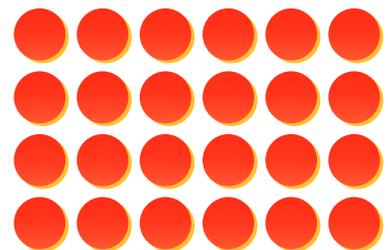
24. There are 24 students in Mr. Smith's class and 30 students in Mr. Becker's class. The students sit in chairs in the gymnasium in rows with 6 chairs in each row. How many rows of chairs are there in all?

- (A) 54
- (B) 4
- (C) 9
- (D) 5

25. Use the array. Which number makes the equation true?

$24 \div 4 = \underline{\hspace{2cm}}$

- (A) 6
- (B) 8
- (C) 20
- (D) 12



26. For Problems 26a–26d, choose Odd or Even to describe the product.

26a.  $52 \times 98$                        Odd     Even

26b.  $25 \times 30$                        Odd     Even

26c.  $84 \times 43$                        Odd     Even

26d.  $49 \times 71$                        Odd     Even

27. Circle all the numbers that are divisible by 2.

115      275      566      328      459      732

28. The number of marbles in a jar is a multiple of 8. Which of these could be the number of marbles in the jar? Select all that apply.

(A) 24

(B) 38

(C) 40

(D) 56

(E) 62

(F) 84

29. O'Shunti has a new book for her stickers. She uses pages that hold 8 stickers and pages that hold 4 stickers. If O'Shunti has 32 stickers, how many different ways can she put them in her book? Complete the table and write the answer below.

Pages with 8 Stickers	1	2		4
Pages with 4 Stickers	6		2	
Total Stickers	32			

O'Shunti can put the stickers in her book \_\_\_\_\_ ways.