

Group It Out

Use multiplication and division to solve equal-group problems.

GRADE 3 • 3.OA.A.3

CCSS.Math.Content.3.OA.A.3 "Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g...."

NAME _____

DATE _____

EQUAL GROUPS

When groups have the same number in each group, multiply to find the total. Divide when you know the total and need to find how many are in each group or how many groups there are. Write an equation with a letter for the unknown number.

WORKED EXAMPLE

A game has 11 teams with 4 players on each team. How many players are there?

1. There are 11 equal groups of 4 players.
2. Write an equation: $11 \times 4 = n$.
3. Multiply: $11 \times 4 = 44$.
4. $n = 44$ players.

Answer: 44 players

PRACTICE 6 problems

- 1** An array has 5 rows with 7 stars in each row. How many stars are in the array? Write an equation using x .

ANSWER _____

- 2** Three bags hold 8 marbles each. How many marbles are there? Write an equation using x .

ANSWER _____

- 3** Fifty-four crayons are shared equally among 6 tables. How many crayons does each table get? Write an equation using x .

ANSWER _____

- 4** A 40-inch ribbon is cut into 5 equal pieces. How long is each piece? Write an equation using x .

ANSWER _____

- 5** Two shelves have 9 books on each shelf. How many books are on the shelves? Write an equation using x .

ANSWER _____

- 6** A reader finishes 72 pages in 8 equal days. How many pages does the reader finish each day? Write an equation using x .

ANSWER _____

APPLY IT Show your work

- 1** At a school fair, 7 booths give out 6 game tokens each. How many game tokens do the booths give out altogether?

WORK SPACE

ANSWER _____

- 2** Maya has 64 beads. She uses the same number of beads to make 8 bracelets. How many beads are on each bracelet?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A librarian puts 72 new books equally on 8 shelves. Then the librarian puts 3 more books on each shelf. How many books are on each shelf now? Explain with equations.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	An array has 5 rows with 7 stars in each row. How many stars are in the array? Write an equation using x .	$5 \times 7 = x$; $x = 35$
2	Three bags hold 8 marbles each. How many marbles are there? Write an equation using x .	$3 \times 8 = x$; $x = 24$
3	Fifty-four crayons are shared equally among 6 tables. How many crayons does each table get? Write an equation using x .	$54 / 6 = x$; $x = 9$
4	A 40-inch ribbon is cut into 5 equal pieces. How long is each piece? Write an equation using x .	$40 / 5 = x$; $x = 8$ inches
5	Two shelves have 9 books on each shelf. How many books are on the shelves? Write an equation using x .	$2 \times 9 = x$; $x = 18$
6	A reader finishes 72 pages in 8 equal days. How many pages does the reader finish each day? Write an equation using x .	$72 / 8 = x$; $x = 9$ pages

PART 2 • APPLY IT

- 42 game tokens** Multiply the number of booths by the tokens at each booth. $7 \times 6 = 42$.
- 8 beads** Divide the total number of beads by the number of bracelets. $64 / 8 = 8$.

CHALLENGE

$72 / 8 = 9$. $9 + 3 = 12$. There are 12 books on each shelf.

Accept correct equations that use a letter other than x for the unknown. For word problems, accept answers with the correct number and appropriate unit.