LESSON MAKER PRO

Groups in Action

Use models and equations to solve equal-group problems.

GRADE 3 · 3.OA.A.3

3.OA.A.3 "Solve word situations using multiplication and division within 100 involving equal groups, arrays, and measurement quantities; represent the situation using models, drawings, and equations with a symbol for the unknown number."

NAME _____ DATE _____

FIND THE UNKNOWN

An array shows equal rows. To find a total, multiply the number of rows by the number in each row. To find the size of one group, divide the total by the number of groups. Use ___ for the unknown number.

WORKED EXAMPLE

Look at the array. How many dots are there? Use ____ for the unknown total.

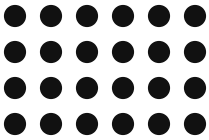


1. Count 3 rows with 7 dots in each row.
2. Write 3 × 7 = ___.
3. Add 7 + 7 + 7 = 21, so ___ = 21.

Answer: 21 dots

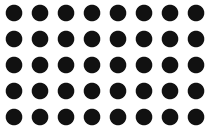
PRACTICE 6 problems

1 Use the array to write a multiplication equation with ___ for the total. How many dots are there?



ANSWER _____

2 Use the array to write a division equation with ___ for the number of dots in each row. How many dots are in each row?



ANSWER _____

_____

3 A robot makes 9 piles with 2 bolts in each pile. How many bolts are there? Complete 9 × 2 = ___.

ANSWER _____

4 There are 32 cards packed equally into 4 packs. How many cards are in each pack? Complete 32 ÷ 4 = ___.

ANSWER _____

5 A ribbon is 48 cm long. You cut it into 6 equal pieces. How long is each piece? Complete 48 ÷ 6 = ___.

ANSWER _____

6 Use the strip model. How long are all the strips together? Complete 5 × 10 = ___.

10 cm	**10 cm**	**10 cm**	**10 cm**	**10 cm**

ANSWER _____

APPLY IT Show your work

1 For a class game, 6 teams each earn 9 points. How many points do they earn in all? Write a multiplication equation with ___ for the total, then solve it.

WORK SPACE

ANSWER _____

2 A player shares 72 stickers equally among 8 friends. How many stickers does each friend get? Write a division equation with ___ for the number each friend gets, then solve it.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Look at the bead array. The beads are split equally among 4 jars. How many beads go in each jar? Write two equations with ___ for the unknown in each, then explain your answer in one sentence.



WORK SPACE AND ANSWER

ANSWER KEY

Groups in Action

GRADE 3 · 3.OA.A.3

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Use the array to write a multiplication equation with ___ for the total. How many dots are there?	**4 × 6 = ___; ___ = 24 dots**
2	Use the array to write a division equation with ___ for the number of dots in each row. How many dots are in each row?	**40 ÷ 5 = ___; ___ = 8 dots**
3	A robot makes 9 piles with 2 bolts in each pile. How many bolts are there? Complete 9 × 2 = ___.	**18 bolts**
4	There are 32 cards packed equally into 4 packs. How many cards are in each pack? Complete 32 ÷ 4 = ___.	**8 cards**
5	A ribbon is 48 cm long. You cut it into 6 equal pieces. How long is each piece? Complete 48 ÷ 6 = ___.	**8 cm**
6	Use the strip model. How long are all the strips together? Complete 5 × 10 = ___.	**50 cm**

PART 2 · APPLY IT

1. **6 × 9 = ___; ___ = 54 points** Multiply the points per team by the number of teams: 6 × 9 = 54.
2. **72 ÷ 8 = ___; ___ = 9 stickers** Divide the total stickers by the number of friends: 72 ÷ 8 = 9.

CHALLENGE

6 × 8 = ___; ___ = 48. 48 ÷ 4 = ___; ___ = 12. The array has 48 beads, so each jar gets 12 beads.

Accept equations that reverse the order of the factors in multiplication. Students may use repeated addition to find an array's total.