

Equation Quest

Write equations to find missing whole numbers.

GRADE 4 • MA.4.AR.2.2

MA.4.AR.2.2 "Given a mathematical or real-world context, write an equation involving multiplication or division to determine the unknown whole number with the unknown in any position."

NAME _____

DATE _____

FIND THE MISSING NUMBER

Use a blank to show the unknown whole number. Equal groups can be shown with multiplication or division. Check your answer by putting it back into the equation.

WORKED EXAMPLE

Four shelves hold 36 library books equally. How many books are on each shelf?

1. Write an equation: $4 \times \underline{\quad} = 36$.

2. Divide: $36 \div 4 = 9$.

3. Check: $4 \times 9 = 36$.

Answer: 9 books are on each shelf.

PRACTICE 6 problems

- 1** Five boxes hold 30 crayons equally. Write an equation and find how many crayons are in each box.

ANSWER _____

- 2** There are 24 game cards. Put 8 cards in each pack. Write an equation and find how many packs you can make.

ANSWER _____

- 3** Share 42 stickers equally among some students. Each student gets 6 stickers. Write an equation and find how many students there are.

ANSWER _____

- 4** Some folders hold 8 drawings each. There are 48 drawings altogether. Write an equation and find how many folders there are.

ANSWER _____

- 5** Put 40 game tokens into prize bags with 5 tokens in each bag. Write an equation and find how many bags you need.

ANSWER _____

- 6** Set up 6 rows of 7 chairs. Write an equation and find how many chairs there are altogether.

ANSWER _____

APPLY IT Show your work

- 1** Maya has 84 beads. She uses the same number of beads to make 7 bracelets. Write an equation and find how many beads are on each bracelet.

WORK SPACE

ANSWER _____

- 2** A gaming tournament has 64 players. Each team has 8 players. Write an equation and find how many teams can play.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

The student council has 12 prize packets. Each classroom must receive 5 packets. Write a division equation. Then explain how many classrooms can receive 5 packets and how many packets remain.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Five boxes hold 30 crayons equally. Write an equation and find how many crayons are in each box.	$5 \times \underline{\quad} = 30$; $\underline{\quad} = 6$
2	There are 24 game cards. Put 8 cards in each pack. Write an equation and find how many packs you can make.	$8 \times \underline{\quad} = 24$; $\underline{\quad} = 3$
3	Share 42 stickers equally among some students. Each student gets 6 stickers. Write an equation and find how many students there are.	$42 / \underline{\quad} = 6$; $\underline{\quad} = 7$
4	Some folders hold 8 drawings each. There are 48 drawings altogether. Write an equation and find how many folders there are.	$\underline{\quad} \times 8 = 48$; $\underline{\quad} = 6$
5	Put 40 game tokens into prize bags with 5 tokens in each bag. Write an equation and find how many bags you need.	$40 / 5 = \underline{\quad}$; $\underline{\quad} = 8$
6	Set up 6 rows of 7 chairs. Write an equation and find how many chairs there are altogether.	$6 \times 7 = \underline{\quad}$; $\underline{\quad} = 42$

PART 2 • APPLY IT

- $84 / 7 = \underline{\quad}$; $\underline{\quad} = 12$ **beads** Divide the total number of beads by the 7 equal bracelets. Each bracelet has 12 beads.
- $8 \times \underline{\quad} = 64$; $\underline{\quad} = 8$ **teams** Use 8 players in each equal team. There are 8 teams.

CHALLENGE

$12 / 5 = 2$ remainder 2. Two classrooms receive 5 packets each, and 2 packets remain.

Accept equivalent multiplication or division equations that match each context and give the correct unknown. For the challenge, accept $12 / 5 = 2 \text{ R } 2$ or $12 / 5 = 2$ remainder 2.