LESSON MAKER PRO

Mystery Number Math

Write equations to find unknown amounts.

GRADE 3 · 3.AT.A.2.a

3.AT.A.2.a "Represent these problems using equations with a letter standing for the unknown quantity."

NAME _____ DATE _____

USE A LETTER

A letter can stand for a number you do not know yet. Write an equation using the amounts you know, then find the value of the letter. In each practice problem, use n for the unknown.

WORKED EXAMPLE

There are 5 baskets with 6 oranges in each basket. How many oranges are there in all? Use n for the total.

1. There are 5 equal groups of 6.
2. Write the equation: 5 × 6 = n.
3. Multiply: 5 × 6 = 30.

Answer: n = 30 oranges

PRACTICE 6 problems

1 Four packs hold 32 stickers in all. How many stickers are in each pack? Write an equation using n, then find n.

ANSWER _____

2 Seven trays hold 9 muffins each. How many muffins are there in all? Write an equation using n, then find n.

ANSWER _____

3 A teacher puts 24 crayons equally into 2 boxes. How many crayons are in each box? Write an equation using n, then find n.

ANSWER _____

4 Eight teams have 72 players in all. Each team has the same number of players. How many players are on each team? Write an equation using n, then find n.

ANSWER _____

5 Some equal groups of 4 shells have 28 shells in all. How many groups are there? Write an equation using n, then find n.

ANSWER _____

6 A student puts 36 cards equally into 9 piles. How many cards are in each pile? Write an equation using n, then find n.

ANSWER _____

APPLY IT Show your work

1 A player scores 8 points in each round of a video game. After several rounds, the player has 72 points. How many rounds did the player finish? Use n for the number of rounds. Write an equation and find n.

WORK SPACE

ANSWER _____

2 Seven teams take part in a reading challenge. Each team reads the same number of books. Together, they read 49 books. How many books does each team read? Use n for the books read by each team. Write an equation and find n.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A player has 3 packs of 8 cards. Then the player gives away 7 cards. Use t for the number of cards at first and r for the number left. Write two equations, then find r.

WORK SPACE AND ANSWER

ANSWER KEY

Mystery Number Math

GRADE 3 · 3.AT.A.2.a

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Four packs hold 32 stickers in all. How many stickers are in each pack? Write an equation using n, then find n.	**4 × n = 32; n = 8 stickers**
2	Seven trays hold 9 muffins each. How many muffins are there in all? Write an equation using n, then find n.	**7 × 9 = n; n = 63 muffins**
3	A teacher puts 24 crayons equally into 2 boxes. How many crayons are in each box? Write an equation using n, then find n.	**2 × n = 24; n = 12 crayons**
4	Eight teams have 72 players in all. Each team has the same number of players. How many players are on each team? Write an equation using n, then find n.	**8 × n = 72; n = 9 players**
5	Some equal groups of 4 shells have 28 shells in all. How many groups are there? Write an equation using n, then find n.	**n × 4 = 28; n = 7 groups**
6	A student puts 36 cards equally into 9 piles. How many cards are in each pile? Write an equation using n, then find n.	**9 × n = 36; n = 4 cards**

PART 2 · APPLY IT

1. **n × 8 = 72; n = 9 rounds** Divide 72 by 8 to find the number of rounds.
2. **7 × n = 49; n = 7 books** Divide 49 by 7 to find the books read by each team.

CHALLENGE

t = 3 × 8; r = t - 7; t = 24 and r = 17 cards

Accept equivalent multiplication or division equations when the letter stands for the stated unknown. For the challenge, accept equivalent equations that correctly show both steps.