LESSON MAKER PRO

Two-Step Equation Quest

Use n to show the unknown amount in each problem.

GRADE 3 · NY-3.OA.8.a

NY-3.OA.8.a "Represent these problems using equations or expressions with a letter standing for the unknown quantity."

NAME _____ DATE _____

SHOW THE UNKNOWN

Use n to name the amount you do not know. Write an equation that shows what happens first and what happens next, then find n.

WORKED EXAMPLE

A library puts 8 books on each of 7 shelves. Then it adds 6 books to a display. Let n be the total number of books. Write an equation and find n.

1. 8 * 7 = 56
2. 56 + 6 = 62
3. n = 8 * 7 + 6

Answer: n = 62

PRACTICE 6 problems

1 There are 3 bags with 5 marbles in each bag. Then 4 marbles are given away. Let n be the marbles left. Write an equation and find n.

ANSWER _____

2 Twenty-four stickers are shared equally by 4 students. Each student gets 5 more stickers. Let n be the number of stickers one student has. Write an equation and find n.

ANSWER _____

3 Five tables have 9 chairs at each table. Then 3 chairs are moved away. Let n be the chairs left. Write an equation and find n.

ANSWER _____

4 Thirty-six crayons are put equally into 4 boxes. Then 3 crayons are added to each box. Let n be the crayons in one box. Write an equation and find n.

ANSWER _____

5 A player opens 4 packs with 5 cards in each pack. The player also gets 3 bonus cards. Let n be the total number of cards. Write an equation and find n.

ANSWER _____

_____

6 A student reads 35 pages equally over 5 days. On one of those days, the student reads 4 additional pages. Let n be the total pages read on that day. Write an equation and find n.

ANSWER _____

_____

APPLY IT Show your work

1 At a game club, 5 teams earn 12 points each. The club adds 9 bonus points to the score. Let n be the total score. Write an equation and find n.

WORK SPACE

ANSWER _____

2 A school garden has 48 seedlings. The seedlings are placed equally into 6 trays, and then 4 extra seedlings are added to each tray. Let n be the seedlings in one tray. Write an equation and find n.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A pet shelter puts the same number of cats into 4 rooms. Then 3 more cats arrive in each room. There are 28 cats altogether. Let n be the number of cats in each room before the new cats arrive. Write an equation and find n.

WORK SPACE AND ANSWER

ANSWER KEY

Two-Step Equation Quest

GRADE 3 · NY-3.OA.8.a

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	There are 3 bags with 5 marbles in each bag. Then 4 marbles are given away. Let n be the marbles left. Write an equation and find n.	**n = 3 * 5 - 4; n = 11**
2	Twenty-four stickers are shared equally by 4 students. Each student gets 5 more stickers. Let n be the number of stickers one student has. Write an equation and find n.	**n = 24 / 4 + 5; n = 11**
3	Five tables have 9 chairs at each table. Then 3 chairs are moved away. Let n be the chairs left. Write an equation and find n.	**n = 5 * 9 - 3; n = 42**
4	Thirty-six crayons are put equally into 4 boxes. Then 3 crayons are added to each box. Let n be the crayons in one box. Write an equation and find n.	**n = 36 / 4 + 3; n = 12**
5	A player opens 4 packs with 5 cards in each pack. The player also gets 3 bonus cards. Let n be the total number of cards. Write an equation and find n.	**n = 4 * 5 + 3; n = 23**
6	A student reads 35 pages equally over 5 days. On one of those days, the student reads 4 additional pages. Let n be the total pages read on that day. Write an equation and find n.	**n = 35 / 5 + 4; n = 11**

PART 2 · APPLY IT

1. **n = 5 * 12 + 9; n = 69** Multiply 5 by 12 to find the team points. Add 9 bonus points.
2. **n = 48 / 6 + 4; n = 12** Divide 48 seedlings among 6 trays. Add 4 extra seedlings to each tray.

CHALLENGE

4 * (n + 3) = 28; n = 4

Accept equivalent equations that show the same two operations in the correct order. Students may use parentheses when they help show the steps.