LESSON MAKER PRO

Math Story Detectives

Use numbers, units, and equations to solve story problems.

GRADE 3 · 3.MP.2

3.MP.2 "Reason abstractly and quantitatively."

NAME _____ DATE _____

TRACK THE QUANTITIES

First, decide what each number tells you and what unit you are finding. Then choose an operation, write an equation, solve it, and check that the answer fits the story.

WORKED EXAMPLE

A garden club puts 7 seeds in each of 6 pots. How many seeds does the club plant?

1. Each pot has 7 seeds, and there are 6 pots.
2. Use multiplication: 6 × 7 = 42.
3. Check: 6 equal groups of 7 make 42.

Answer: 42 seeds

PRACTICE 6 problems

1 Leah puts 8 crayons in each of 3 boxes. Write an equation, solve, and check that your total makes sense.

ANSWER _____

2 Jamal had 65 library books to shelve. He shelved 14 books. Write an equation, solve, and check how many books are still waiting.

ANSWER _____

3 A coach shares 45 wristbands equally among 5 teams. Write an equation, solve, and check how many wristbands each team gets.

ANSWER _____

4 A maker club fills 4 trays with 12 beads on each tray. Write an equation, solve, and check the total number of beads.

ANSWER _____

5 A music class has 83 song cards. The class uses 26 cards during a game. Write an equation, solve, and check how many cards are left.

ANSWER _____

6 An animal shelter has space for 30 food cans in a bin. Fourteen volunteers each bring 2 cans. Write equations to find how many more cans fit in the bin.

ANSWER _____

APPLY IT Show your work

1 The Arcade Tickets table records tickets Nia won at three games. A robot prize costs 70 tickets. How many more tickets does Nia need? Write two equations and check your answer.

ARCADE TICKETS

Game	Tickets Won
Ring Toss	16
Maze Race	23
Ball Roll	19

ANSWER _____

2 At field day, a team packs 96 water bottles equally into 8 coolers. Three coolers go to the runners. How many water bottles go to the runners? Write equations that match the story.

WORK SPACE

ANSWER _____

CHALLENGE One step up

The school play has 72 programs. They are put into bundles of 4. Nine bundles are handed out. How many programs are left? Explain why dividing first helps.

WORK SPACE AND ANSWER

ANSWER KEY

Math Story Detectives

GRADE 3 · 3.MP.2

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Leah puts 8 crayons in each of 3 boxes. Write an equation, solve, and check that your total makes sense.	**3 × 8 = 24; 24 crayons**
2	Jamal had 65 library books to shelve. He shelved 14 books. Write an equation, solve, and check how many books are still waiting.	**65 - 14 = 51; 51 books**
3	A coach shares 45 wristbands equally among 5 teams. Write an equation, solve, and check how many wristbands each team gets.	**45 ÷ 5 = 9; 9 wristbands per team**
4	A maker club fills 4 trays with 12 beads on each tray. Write an equation, solve, and check the total number of beads.	**4 × 12 = 48; 48 beads**
5	A music class has 83 song cards. The class uses 26 cards during a game. Write an equation, solve, and check how many cards are left.	**83 - 26 = 57; 57 song cards**
6	An animal shelter has space for 30 food cans in a bin. Fourteen volunteers each bring 2 cans. Write equations to find how many more cans fit in the bin.	**14 × 2 = 28; 30 - 28 = 2 cans**

PART 2 · APPLY IT

1. **12 tickets** Add 16 + 23 + 19 = 58 tickets. Then subtract 58 from 70, so Nia needs 12 more tickets.
2. **36 water bottles** Divide 96 by 8 to find 12 bottles in each cooler. Multiply 12 by 3, so the runners get 36 bottles.

CHALLENGE

36 programs are left. Divide 72 ÷ 4 = 18 bundles, then subtract 18 - 9 = 9 bundles. Multiply 9 × 4 = 36 programs.

Accept equations with factors in either order for multiplication. Students may use a related fact or repeated addition to check, as long as the final quantity and unit are correct.