LESSON MAKER PRO

Math in Motion

Use math to solve everyday problems.

GRADES K-12 · MA.K12.MTR.7.1

MA.K12.MTR.7.1 "Apply mathematics to real-world contexts. Mathematicians who apply mathematics to real-world contexts: Connect mathematical concepts to everyday experiences. Use models and methods to understand, represent and solve problems..."

NAME _____ DATE _____

PLAN, SOLVE, CHECK

First, decide what is happening in the story. Use an equation to model the situation, solve it, and check that your answer makes sense in the real world.

WORKED EXAMPLE

The art club puts 7 paintbrushes in each of 4 cups. How many paintbrushes are in the cups?

1. Plan: There are equal groups, so multiply.
2. Write: 7 x 4 = 28.
3. Check: 4 groups of 7 make 28.

Answer: 28 paintbrushes

PRACTICE 6 problems

1 Maya packs 5 bags with 9 trail mix packets in each bag. How many packets does she pack? Choose a plan, solve, and check.

ANSWER _____

2 The library has 31 new bookmarks. Students take 12 bookmarks. How many bookmarks are left? Choose a plan, solve, and check.

ANSWER _____

3 The recycling club fills 8 boxes with 5 cans in each box. It uses 11 cans for a sculpture. How many cans are left? Choose a plan, solve, and check.

ANSWER _____

4 A teacher shares 54 stickers equally among 9 students. How many stickers does each student get? Choose a plan, solve, and check.

ANSWER _____

5 A class collects 26 leaves on Monday and 15 leaves on Tuesday. How many leaves does the class collect altogether? Choose a plan, solve, and check.

ANSWER _____

6 A player wants 63 stars in a game. The player has 38 stars and earns 13 more stars. How many more stars does the player need? Choose a plan, solve, and check.

ANSWER _____

APPLY IT Show your work

1 At a school game night, 9 tables have 8 seats each. Volunteers fill 17 of the seats before students arrive. How many seats are still open for students? Write an equation for each step and check your answer.

WORK SPACE

ANSWER _____

2 The school arcade gives a team 96 tickets. The team trades tickets for 3 prize packs that cost 17 tickets each. Then the team shares the tickets left equally among 5 players. How many tickets does each player get? Write an equation for each step and check your answer.

WORK SPACE

ANSWER _____

CHALLENGE One step up

At field day, 96 cups are placed equally into 8 coolers. Then 3 cups from each cooler are used. How many cups remain? Show equations and explain how you checked your answer.

WORK SPACE AND ANSWER

ANSWER KEY

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Maya packs 5 bags with 9 trail mix packets in each bag. How many packets does she pack? Choose a plan, solve, and check.	**Plan: multiply equal groups. 5 x 9 = 45. Check: 9 + 9 + 9 + 9 + 9 = 45. Maya packs 45 packets.**
2	The library has 31 new bookmarks. Students take 12 bookmarks. How many bookmarks are left? Choose a plan, solve, and check.	**Plan: subtract the bookmarks taken. 31 - 12 = 19. Check: 19 + 12 = 31. There are 19 bookmarks left.**
3	The recycling club fills 8 boxes with 5 cans in each box. It uses 11 cans for a sculpture. How many cans are left? Choose a plan, solve, and check.	**Plan: find the total, then subtract. 8 x 5 = 40, and 40 - 11 = 29. Check: 29 + 11 = 40. There are 29 cans left.**
4	A teacher shares 54 stickers equally among 9 students. How many stickers does each student get? Choose a plan, solve, and check.	**Plan: divide into equal shares. 54 / 9 = 6. Check: 9 x 6 = 54. Each student gets 6 stickers.**
5	A class collects 26 leaves on Monday and 15 leaves on Tuesday. How many leaves does the class collect altogether? Choose a plan, solve, and check.	**Plan: add the two collections. 26 + 15 = 41. Check: 41 - 15 = 26. The class collects 41 leaves altogether.**
6	A player wants 63 stars in a game. The player has 38 stars and earns 13 more stars. How many more stars does the player need? Choose a plan, solve, and check.	**Plan: find the new total, then find what is needed. 38 + 13 = 51, and 63 - 51 = 12. Check: 51 + 12 = 63. The player needs 12 more stars.**

PART 2 · APPLY IT

1. **9 x 8 = 72; 72 - 17 = 55. Check: 55 + 17 = 72. There are 55 open seats.** Find all the seats by multiplying the tables by the seats at each table. Subtract the seats filled by volunteers.
2. **3 x 17 = 51; 96 - 51 = 45; 45 / 5 = 9. Check: 5 x 9 = 45. Each player gets 9 tickets.** First find the tickets spent on prize packs, then subtract from 96. Divide the remaining tickets equally among the 5 players.

CHALLENGE

96 / 8 = 12. 12 - 3 = 9. 8 x 9 = 72, so 72 cups remain. The multiplication check shows that 9 cups remain in each of 8 coolers.

Accept equivalent correct equations and clear checking methods. Students may use repeated addition, multiplication, subtraction, or division when the method correctly matches the situation.