

Plan, Solve, Check

Choose a math plan, solve it, and check your thinking.

GRADES K-12 • MA.K12.MTR.1.1

MA.K12.MTR.1.1 "Actively participate in effortful learning both individually and collectively. Mathematicians who participate in effortful learning both individually and with others: Analyze the problem in a way that makes sense given the task..."

NAME _____

DATE _____

THINK LIKE A SOLVER

Make a plan before you solve. Ask, "Am I joining groups, taking away, or finding what is missing?" Use a method that makes sense, check with the opposite operation, and compare plans with a partner when you can.

WORKED EXAMPLE

Noah has 24 crayons. He gives 13 crayons to classmates. How many crayons does he have left?

1. Start with 24 crayons.
2. Giving crayons away means subtract: $24 - 13$.
3. Subtract: $24 - 13 = 11$.
4. Check: $11 + 13 = 24$.

Answer: 11 crayons

PRACTICE 6 problems

- 1** A garden club plants 37 flowers. Then the club plants 22 more flowers. Make a plan, solve, and check your answer.

ANSWER _____

- 2** Lena has 46 building blocks. She uses 19 blocks to make a tower. How many blocks are left? Solve and check.

ANSWER _____

- 3** Zuri has 28 trading cards and gets 34 more cards. Zuri subtracts and says she has 6 cards. Is that a good plan? Explain, solve, and check.

ANSWER _____

- 4** The art room has 71 markers. Teachers take 26 markers to classroom tables. How many markers are left in the art room? Write an equation, solve, and check.

ANSWER _____

- 5** A class needs 59 paper cups for a celebration. The class already has 16 cups. How many more cups are needed? Solve and check.

ANSWER _____

- 6** A maker table has 65 beads. Students use 32 beads for bracelets. How many beads are left? Choose an operation, solve, and check.

ANSWER _____

APPLY IT Show your work

- 1** At a school book swap, 54 books are on a table. Students bring 27 more books. How many books are on the table now? Write an equation, solve, and check.

WORK SPACE

ANSWER _____

- 2** The recess cart has 83 jump ropes. Students borrow 38 jump ropes. How many jump ropes are still on the cart? Write an equation, solve, and check.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

At the art club, 68 sheets of paper are in a box. Students add 17 sheets, then use 29 sheets. How many sheets are left? Write two equations and explain how you checked your answer.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	A garden club plants 37 flowers. Then the club plants 22 more flowers. Make a plan, solve, and check your answer.	$37 + 22 = 59$ flowers. Check: $59 - 22 = 37$.
2	Lena has 46 building blocks. She uses 19 blocks to make a tower. How many blocks are left? Solve and check.	$46 - 19 = 27$ blocks. Check: $27 + 19 = 46$.
3	Zuri has 28 trading cards and gets 34 more cards. Zuri subtracts and says she has 6 cards. Is that a good plan? Explain, solve, and check.	No. Zuri is joining cards, so she should add: $28 + 34 = 62$ cards. Check: $62 - 34 = 28$.
4	The art room has 71 markers. Teachers take 26 markers to classroom tables. How many markers are left in the art room? Write an equation, solve, and check.	$71 - 26 = 45$ markers. Check: $45 + 26 = 71$.
5	A class needs 59 paper cups for a celebration. The class already has 16 cups. How many more cups are needed? Solve and check.	$59 - 16 = 43$ cups. Check: $16 + 43 = 59$.
6	A maker table has 65 beads. Students use 32 beads for bracelets. How many beads are left? Choose an operation, solve, and check.	$65 - 32 = 33$ beads. Check: $33 + 32 = 65$.

PART 2 • APPLY IT

- 81 books** Join the two groups: $54 + 27 = 81$. Check with subtraction: $81 - 27 = 54$.
- 45 jump ropes** Take away the borrowed ropes: $83 - 38 = 45$. Check with addition: $45 + 38 = 83$.

CHALLENGE

56 sheets are left. $68 + 17 = 85$, and $85 - 29 = 56$. I checked by adding $56 + 29 = 85$.

Accept correct equations and checks written in a different order when the math is accurate. For the challenge, accept any clear explanation that uses addition to check the number of sheets left.