LESSON MAKER PRO

Math Talk Detectives

Solve, check, and discuss each strategy.

GRADES K-12 · MA.K12.MTR.4.1

MA.K12.MTR.4.1 "Engage in discussions that reflect on the mathematical thinking of self and others. Mathematicians who engage in discussions that reflect on the mathematical thinking of self and others: Communicate mathematical ideas..."

NAME _____ DATE _____

EXPLAIN AND CHECK

When you discuss a math solution, tell what was added or subtracted in each step. Check the result by using a related operation or by deciding whether the answer makes sense.

WORKED EXAMPLE

Ava has 27 sticker cards and gets 15 more. Ben says, "Add 10, then 5." Is he right?

1. 27 + 10 = 37.
2. 37 + 5 = 42.
3. Ben's method matches 27 + 15.

Answer: Yes. Ava has 42 sticker cards.

PRACTICE 5 problems

1 Noah counts 34 library books on one cart and 26 on another. He says 34 + 20 + 6 = 60. Is Noah correct? Explain.

ANSWER _____

2 A game score rises from 48 points by 17 points. Lila adds 48 + 8 + 9. What total should she get? Check her steps.

ANSWER _____

3 A team has 73 beads and uses 28. Omar writes 73 - 20 - 8 = 45. Check Omar's method. Is it correct?

ANSWER _____

4 A pet shop has 71 fish. Priya says 71 - 30 - 6 = 41 for 36 fish sold. Find and fix her error.

ANSWER _____

5 At a snack stand, 39 apples and 24 pears are packed. Jae adds 40 + 24, then subtracts 1. Is this method efficient? What is the total?

ANSWER _____

APPLY IT Show your work

1 At a school food drive, students collect 56 cans on Monday and 38 cans on Tuesday. Leo adds 56 + 30 + 8. Nia adds 50 + 30 + 6 + 8. What total do both methods show? Which method has fewer steps? Explain.

WORK SPACE

ANSWER _____

2 A music club needs 92 tickets. It sells 46 tickets on Friday and 29 on Saturday. Riley says 25 tickets are left. Is Riley correct? Explain.

WORK SPACE

ANSWER _____

CHALLENGE One step up

An arcade prize shelf has 84 tokens. After 36 tokens are claimed, Sam says 84 - 36 = 58 because 84 - 30 = 54 and 54 - 6 = 58. Write the correction and a check.

WORK SPACE AND ANSWER

ANSWER KEY

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Noah counts 34 library books on one cart and 26 on another. He says 34 + 20 + 6 = 60. Is Noah correct? Explain.	**Yes. 34 + 20 + 6 = 60.**
2	A game score rises from 48 points by 17 points. Lila adds 48 + 8 + 9. What total should she get? Check her steps.	**65 points. 48 + 8 = 56, and 56 + 9 = 65.**
3	A team has 73 beads and uses 28. Omar writes 73 - 20 - 8 = 45. Check Omar's method. Is it correct?	**Yes. 73 - 20 = 53, and 53 - 8 = 45.**
4	A pet shop has 71 fish. Priya says 71 - 30 - 6 = 41 for 36 fish sold. Find and fix her error.	**Priya should get 35. After 71 - 30 = 41, she must subtract 6 more.**
5	At a snack stand, 39 apples and 24 pears are packed. Jae adds 40 + 24, then subtracts 1. Is this method efficient? What is the total?	**Yes. 40 + 24 - 1 = 63, so there are 63 pieces of fruit.**

PART 2 · APPLY IT

1. **Both methods show 94 cans. Leo's method has fewer steps. Leo gets 86, then 94. Nia gets 80, then 86, then 94.** Leo's method has fewer steps. Leo gets 86, then 94. Nia gets 80, then 86, then 94.
2. **No. 17 tickets are left. 92 - 46 = 46, and 46 - 29 = 17. Riley's answer is not correct.** 92 - 46 = 46, and 46 - 29 = 17. Riley's answer is not correct.

CHALLENGE

54 - 6 = 48, not 58. The answer is 48 tokens, and 48 + 36 = 84.

Accept equivalent correct strategies and clear explanations of errors. Students may use addition to check subtraction or break apart numbers in a different correct way.