

Equation Detectives

Check each number sentence for the truth.

GRADE 2 • MA.2.AR.2.1

MA.2.AR.2.1 "Determine and explain whether equations involving addition and subtraction are true or false."

NAME _____

DATE _____

CHECK BOTH SIDES

An equation is true when both sides have the same value. Find each side, then compare the values to decide true or false.

WORKED EXAMPLE

A game card says: $11 + 6 = 17$.
Is the card true or false?

1. Add $11 + 6$.
2. $11 + 6 = 17$.
3. Both sides show 17, so the equation is true.

Answer: True

PRACTICE 5 problems

- 1** A toy bin label says: $4 + 3 = 5$. Is the label true or false?

ANSWER _____

- 2** A puppy has 9 treats and eats 4 treats. A note says: $9 - 4 = 5$. Is the note true or false?

ANSWER _____

- 3** A crayon box label says: $2 + 3 = 5$. Is the label true or false?

ANSWER _____

- 4** A game scorecard says: $10 - 3 = 8$. Is the scorecard true or false?

ANSWER _____

- 5** A shell collection card says: $12 - 4 = 9$. Is the card true or false?

ANSWER _____

APPLY IT Show your work

- 1** Mia has 14 stickers. She gives 5 stickers to a friend. Her notebook says: $14 - 5 = 9$. Is her notebook true or false?

WORK SPACE

ANSWER _____

- 2** Leo has 4 dinosaur cards. He gets 5 more cards. A card says: $4 + 5 = 10$. Is the card true or false?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A board game card says: $16 - 9 = 3 + 4$. Is the card true or false? Explain how you know.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	A toy bin label says: $4 + 3 = 5$. Is the label true or false?	False
2	A puppy has 9 treats and eats 4 treats. A note says: $9 - 4 = 5$. Is the note true or false?	True
3	A crayon box label says: $2 + 3 = 5$. Is the label true or false?	True
4	A game scorecard says: $10 - 3 = 8$. Is the scorecard true or false?	False
5	A shell collection card says: $12 - 4 = 9$. Is the card true or false?	False

PART 2 • APPLY IT

1. **True** Subtract 5 from 14 to get 9. Both sides are 9, so the equation is true.
2. **False** Add 4 and 5 to get 9. The sides are not the same, so the equation is false.

CHALLENGE

True. $16 - 9 = 7$, and $3 + 4 = 7$.

Accept "true" or "false" answers. For the challenge, accept an explanation that shows both sides equal 7.