LESSON MAKER PRO

True or False?

Test equations and inequalities by replacing the blank.

GRADE 5 · 5.A.2.2

5.A.2.2 "Determine whether an equation or inequality involving a variable is true or false for a given value of the variable."

NAME _____ DATE _____

CHECK THE VALUE

The blank stands for a number. Replace every blank with the given value, then calculate. An equation is true when both sides are equal. For an inequality, check whether the comparison is correct.

WORKED EXAMPLE

Is 3 × ____ + 8 = 35 true or false when ____ = 9?

1. Replace the blank: 3 × 9 + 8 = 35.
2. Multiply: 3 × 9 = 27.
3. Add: 27 + 8 = 35.

Answer: True, because 35 = 35.

PRACTICE 6 problems

1 Is 6 × ___ = 24 true or false when ___ = 4?

ANSWER _____

2 Is ___ + 11 < 20 true or false when ___ = 10?

ANSWER _____

3 Is 48 / ___ = 12 true or false when ___ = 4?

ANSWER _____

4 Is ___ - 6 > 10 true or false when ___ = 15?

ANSWER _____

5 Is 4 × ___ + 10 = 90 true or false when ___ = 20?

ANSWER _____

6 Is 44 - ___ < 30 true or false when ___ = 11?

ANSWER _____

APPLY IT Show your work

1 In a video game, you earn 10 coins for each quest you finish. You spend 15 coins on a costume. The equation 10 × ___ - 15 = 45 says you have 45 coins left after ___ quests. Is it true when ___ = 6? Show how you know.

WORK SPACE

ANSWER _____

2 At a school fair, bracelets cost 4 tickets each. You have 50 tickets. The inequality 50 - 4 × ___ < 30 says you have fewer than 30 tickets left after buying ___ bracelets. Is it true when ___ = 4? Show how you know.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Is 60 / (___ - 6) > ___ - 4 true or false when ___ = 12? Explain in one sentence.

WORK SPACE AND ANSWER

ANSWER KEY

True or False?

GRADE 5 · 5.A.2.2

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Is 6 × ___ = 24 true or false when ___ = 4?	**True**
2	Is ___ + 11 < 20 true or false when ___ = 10?	**False**
3	Is 48 / ___ = 12 true or false when ___ = 4?	**True**
4	Is ___ - 6 > 10 true or false when ___ = 15?	**False**
5	Is 4 × ___ + 10 = 90 true or false when ___ = 20?	**True**
6	Is 44 - ___ < 30 true or false when ___ = 11?	**False**

PART 2 · APPLY IT

1. **True** Six quests earn 60 coins. After spending 15 coins, 45 remain, so the equation is true.
2. **False** Four bracelets cost 16 tickets, leaving 34. Since 34 is not less than 30, the inequality is false.

CHALLENGE

True. When ___ = 12, the left side is 60 / 6 = 10 and the right side is 12 - 4 = 8, so 10 > 8.

Accept true or false with or without a supporting calculation for the six practice problems. For the challenge, accept any one-sentence explanation that correctly compares 10 and 8.