LESSON MAKER PRO

Solve It Out

Use inverse operations to find the value of x.

GRADE 6 · 6.EE.B

CCSS.Math.Content.6.EE.B "Reason about and solve one-variable equations and inequalities."

NAME _____ DATE _____

UNDO TO SOLVE

To solve an equation, undo operations in reverse order while doing the same thing to both sides. For an inequality, reverse the inequality sign only when you multiply or divide by a negative number.

WORKED EXAMPLE

Solve: $4x + 3 = 31$

1. Subtract 3 from both sides: $4x = 28$.
2. Divide both sides by 4: $x = 7$.

Answer: x = 7

PRACTICE 6 problems

1 Solve: $x + 9 = 22$

ANSWER _____

2 Solve: $6x = 54$

ANSWER _____

3 Solve: $x/5 = 8$

ANSWER _____

4 Solve: $2x - 11 = 19$

ANSWER _____

5 Solve: $10x + 1 = 61$

ANSWER _____

6 Solve: $12 - x > 2$

ANSWER _____

APPLY IT Show your work

1 A game club charges $12 to join and $5 for each tournament. Jordan paid $52 total. How many tournaments did Jordan enter?

WORK SPACE

ANSWER _____

2 You have 68 minutes before practice. Each video clip is 6 minutes long, and you need at least 14 minutes to pack and travel. What is the greatest number of clips you can watch?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Solve: 8(x - 5) = 6x + 26

_____

_____

ANSWER KEY

Solve It Out

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Solve: x + 9 = 22	**x = 13**
2	Solve: 6x = 54	**x = 9**
3	Solve: x/5 = 8	**x = 40**
4	Solve: 2x - 11 = 19	**x = 15**
5	Solve: 10x + 1 = 61	**x = 6**
6	Solve: 12 - x > 2	**x < 10**

PART 2 · APPLY IT

1. **8 tournaments** Write 12 + 5x = 52. Subtract 12, then divide by 5 to get x = 8.
2. **9 clips** Write 6x + 14 <= 68. Subtract 14 and divide by 6, so x <= 9.

CHALLENGE

x = 33

Accept equivalent equation solutions written with or without the variable first. For the inequality, accept x < 10 or any equivalent wording, such as “less than 10.”