2 Step Equations Worksheets

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Part 1: Building a Foundation

What is the first step in solving the equation 3x + 4 = 10?

Hint: Think about how to isolate the variable.

- ◯ Add 4 to both sides
- ◯ Subtract 4 from both sides
- ◯ Multiply both sides by 3
- ◯ Divide both sides by 3

Which of the following are examples of 2 step equations? (Select all that apply)

Hint: Look for equations that require two operations to solve.

- ☐ 2x + 5 = 11
- ☐ x/3 - 7 = 2
- ☐ 4x = 16
- ☐ x + 3 = 5

Explain why it is important to perform operations in the correct order when solving 2 step equations.

Hint: Consider the impact on the solution if the order is incorrect.

List the two main operations typically involved in solving a 2 step equation.

Hint: Think about the operations that help isolate the variable.

1. First operation

2. Second operation

Part 2: Understanding and Interpretation

In the equation 5x - 9 = 16, what is the result after performing the first step?

Hint: Consider what happens when you isolate the term with x.

- ◯ 5x = 25
- ◯ 5x = 7
- ◯ x = 5
- ◯ x = 1.4

Which steps are necessary to solve the equation x/4 + 3 = 7? (Select all that apply)

Hint: Think about how to isolate x in this equation.

- ☐ Multiply both sides by 4
- ☐ Subtract 3 from both sides
- ☐ Add 3 to both sides
- ☐ Divide both sides by 4

Describe how you would check if your solution to the equation 2x + 6 = 14 is correct.

Hint: Think about substituting your solution back into the original equation.

Part 3: Application and Analysis

Solve the equation 7x - 5 = 30. What is the value of x?

Hint: Isolate x by performing the necessary operations.

- ◯ 5
- ◯ 7
- ◯ 10
- ◯ 15

You have the equation 3(x - 2) = 12. Which of the following steps are correct to solve for x? (Select all that apply)

Hint: Consider how to simplify the equation step by step.

- ☐ Divide both sides by 3
- ☐ Add 2 to both sides
- ☐ Subtract 2 from both sides
- ☐ Multiply both sides by 3

Create a real-world scenario where solving a 2 step equation would be necessary, and demonstrate how you would solve it.

Hint: Think about a situation that involves two operations.

Part 4: Evaluation and Creation

If you have the equation 4x + 2 = 18, what operation would you perform after subtractinging 2 from both sides?

Hint: Consider how to isolate x after simplifying the equation.

- ◯ Multiply by 4

- ◯ Divide by 4
- ◯ Add 4
- ◯ Subtract 4

Analyze the equation 5x - 3 = 2x + 9 and explain the steps needed to isolate x on one side of the equation.

Hint: Think about how to rearrange the equation to get x alone.

Which of the following equations has a solution that is a negative number?

Hint: Consider the solutions of each equation carefully.

- ◯ 2x + 5 = 9
- ◯ 3x - 4 = 2
- ◯ x/2 + 3 = 1
- ◯ 4x + 1 = 17

Evaluate the following solutions to determine which are correct for the equation 6x + 4 = 22. (Select all that apply)

Hint: Substitute each solution back into the equation to check.

- ☐ x = 3
- ☐ x = 4
- ☐ x = 2
- ☐ x = 5

Design your own 2 step equation that could represent a real-world problem, and explain how you would solve it, including checking your solution.

Hint: Think about a scenario that requires two operations to find a solution.