

## 2 Step Equations Worksheet

2 Step Equations Worksheet

Disclaimer: The 2 step equations worksheet was generated with the help of StudyBlaze Al. Please be aware that Al can make mistakes. Please consult your teacher if you're unsure about your solution or think there might have been a mistake. Or reach out directly to the StudyBlaze team at max@studyblaze.io.

Part 1: Building a Foundation	
What is the first step in solving a 2-step equation of the form ax + b = c?	
Hint: Think about how to isolate the variable.	
Multiply both sides by a	
Add b to both sides	
○ Subtract b from both sides	
O Divide both sides by a	
Which of the following are common operations used in solving 2-step equations apply)	? (Select all that
Hint: Consider the basic arithmetic operations.	
Addition	
Subtraction	
Multiplication	
Division	
Explain in your own words what a 2-step equation is and provide an example.	
Hint: Think about the structure of the equation and how to solve it.	



List the two main operations typically involved in solving a 2-step equation and describe their purpose.

Hint: Consider the operations that help isolate the variable.
1. What is the first operation?
2. What is the second operation?
Part 2: Understanding and Interpretation
In the equation $4x + 5 = 21$ , what is the purpose of subtractinging 5 from both sides?
Hint: Think about isolating the variable term.
○ To eliminate the variable
○ To isolate the variable term
<ul> <li>To balance the equation</li> </ul>
○ To simplify the equation
Which of the following statements are true about verifying a solution to a 2-step equation? (Select a that apply)
Hint: Consider the steps involved in checking your work.
☐ Substitute the solution back into the original equation.
☐ Ensure both sides of the equation are equal.
Check that the variable is isolated.
☐ The solution must be a whole number.
Describe the process of solving the equation $3x - 4 = 11$ and explain why each step is necessary.
Hint: Break down the steps and their significance.

Create hundreds of practice and test experiences based on the latest learning science.



Your AI Tutor for interactive quiz, worksheet and flashcard creation.

Part 3: Application and Analysis
Solve the equation $2x + 7 = 15$ . What is the value of x?
Hint: Isolate x by performing inverse operations.
3
○ 4 ○ 5
○ 5 ○ 6
Which of the following equations are solved correctly? (Select all that apply)
Hint: Check each solution step by step.
3x + 3 = 18; x = 3
4x - 2 = 10; x = 3
0 6x + 9 = 27; x = 3 $7x - 5 = 16; x = 3$
$\int 7x - 3 = 10, x = 3$
Create a real-world scenario where solving a 2-step equation would be necessary, and solve the equation.
Hint: Think about situations involving quantities and relationships.

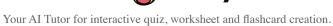
Create hundreds of practice and test experiences based on the latest learning science.



## Part 4: Evaluation and Creation

What is the error in solving the equation $3x + 4 = 19$ by subtractinging 4 and then dividing by 2?
Hint: Consider the order of operations.
○ Incorrect subtraction
○ Incorrect division
○ Incorrect order of operations
○ No error
Analyze the following solutions and identify which ones have errors. (Select all that apply)
Hint: Check each solution against the original equation.
2x + 3 = 11; x = 4
$\int 5x - 7 = 18; x = 5$
4x + 6 = 22; x = 4
3x - 5 = 10; x = 5
Break down the steps involved in solving the equation $7x - 3 = 25$ and explain the reasoning behind each step.
Hint: Detail each operation and its purpose.
If a student solved the equation $6x + 8 = 20$ and found $x = 2$ , what is the best evaluation of their solution?
If a student solved the equation $6x + 8 = 20$ and found $x = 2$ , what is the best evaluation of their
If a student solved the equation $6x + 8 = 20$ and found $x = 2$ , what is the best evaluation of their solution?
If a student solved the equation $6x + 8 = 20$ and found $x = 2$ , what is the best evaluation of their solution?  Hint: Consider the correctness of the solution.
If a student solved the equation 6x + 8 = 20 and found x = 2, what is the best evaluation of their solution?  Hint: Consider the correctness of the solution.  Correct, because both sides are equal

Create hundreds of practice and test experiences based on the latest learning science.





Create a 2-step equation that has a solution of $x = 5$ . Which of the following equations meet this criterion? (Select all that apply)
Hint: Think about how to manipulate the equation to find x.
2x + 5 = 15
3x - 5 = 10 $ 4x + 1 = 21$
$\int 5x - 10 = 15$
Design a complex problem involving a 2-step equation and provide a detailed solution, explaining each step and its significance.
Hint: Consider a scenario that requires multiple steps to solve.