

# One Step Equations Worksheet Questions and Answers PDF

One Step Equations Worksheet Questions And Answers PDF

*Disclaimer: The one step equations worksheet questions and answers pdf was generated with the help of StudyBlaze AI. Please be aware that AI 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](mailto:max@studyblaze.io).*

## Part 1: Building a Foundation

---

### What is a one step equation?

*Hint: Think about the number of operations needed to solve it.*

- A) An equation that requires multiple operations to solve
- B) An equation that can be solved in a single operation ✓
- C) An equation with no variables
- D) An equation that cannot be solved

■ A one step equation can be solved in a single operation.

### Which of the following operations can be used to solve one step equations?

*Hint: Consider the basic arithmetic operations.*

- A) Addition ✓
- B) Subtraction ✓
- C) Multiplication ✓
- D) Division ✓

■ Addition, subtraction, multiplication, and division can all be used.

### Explain why it is important to perform the same operation on both sides of an equation.

*Hint: Think about maintaining balance in the equation.*

**Perform the same operation on both sides to keep the equation balanced.**

**List the inverse operations for the following:**

*Hint: Think about how to reverse each operation.*

1. Addition

**Subtraction**

---

2. Subtraction

**Addition**

---

3. Multiplication

**Division**

---

4. Division

**Multiplication**

---

The inverse operations are: Addition - Subtraction, Subtraction - Addition, Multiplication - Division, Division - Multiplication.

## Part 2: comprehension and Application

---

If  $x + 7 = 10$ , what operation would you use to solve for  $x$ ?

Hint: Think about how to isolate  $x$ .

- A) Addition
- B) Subtraction ✓
- C) Multiplication
- D) Division

You would use subtraction to isolate  $x$ .

Which of the following equations can be solved by division?

Hint: Look for equations that involve multiplication.

- A)  $3x = 12$  ✓
- B)  $x - 5 = 10$
- C)  $x + 8 = 15$
- D)  $x/4 = 2$  ✓

The equation  $3x = 12$  and  $x/4 = 2$  can be solved by division.

Create a real-world scenario where solving a one step equation would be necessary. Explain the situation and the equation used.

Hint: Think about everyday situations that involve solving for an unknown.

A scenario could involve budgeting, where you need to find out how much money you have left after spending.

Solve the equation  $x - 9 = 4$ . What is the value of  $x$ ?

Hint: Think about what you need to add to 9 to get 4.

- A) 5
- B) 13 ✓
- C) -5
- D) 9

The value of  $x$  is 13.

### Part 3: Analysis, Evaluation, and Creation

---

Which property of equality is used when solving the equation  $x + 5 = 12$  by subtractING 5 from both sides?

Hint: Consider the rules that govern equality.

- A) ReflexIVE Property
- B) Symmetric Property
- C) Transitive Property
- D) Subtraction Property of Equality ✓

The Subtraction Property of Equality is used.

Analyze the following equations and identify which ones are incorrectly solved:

Hint: Look for mistakes in the solutions provided.

- A)  $x + 4 = 9 \rightarrow x = 5$  ✓
- B)  $2x = 8 \rightarrow x = 4$
- C)  $x - 3 = 2 \rightarrow x = 1$  ✓
- D)  $x/5 = 3 \rightarrow x = 15$

The incorrectly solved equations are C) and A).

Explain how you would solve the equation  $5x = 20$  and why the method works.

Hint: Think about isolating  $x$  and the operations involved.

**You would divide both sides by 5 to isolate  $x$ , which works because of the properties of equality.**

**Evaluate the solution of the equation  $x + 6 = 14$ . What is the correct value of  $x$ ?**

Hint: Think about what you need to subtract from 14.

- A) 8 ✓
- B) 20
- C) 14
- D) 6

**The correct value of  $x$  is 8.**

**Which of the following solutions are correct for the given equations?**

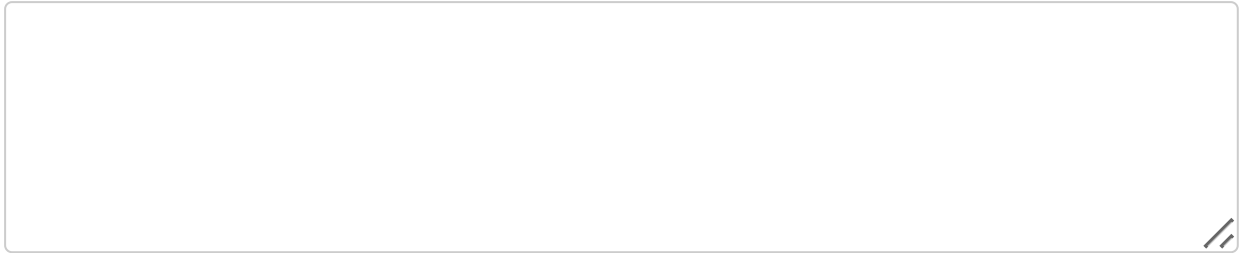
Hint: Evaluate each solution carefully.

- A)  $x - 4 = 10 \rightarrow x = 14$  ✓
- B)  $3x = 9 \rightarrow x = 3$  ✓
- C)  $x + 7 = 15 \rightarrow x = 8$
- D)  $x/2 = 4 \rightarrow x = 8$  ✓

**The correct solutions are A), B), and D).**

**Design a one step equation problem that involves a real-life context, such as budgeting or cooking. Describe the problem and provide the solution.**

Hint: Think about everyday situations that involve solving for an unknown.



■ A problem could involve calculating how much money is left after spending a certain amount.