

## Defend Your Steps

### Directions:

You are the lawyer in a high-profile Algebra court case. You are given these three questions to solve:

$$2x + 5 = 9$$

$$6y - 8 = 10$$

$$-3z - 4 = 8$$

Write your calculations below each problem and write your justifications to the right of each problem. Your client is depending on your expertise, so write clearly with proper spelling and grammar.

These particular problems require two steps to solve. As a result, you will need to write a justification for each of these two steps. Solving equations requires you to perform the opposite operation to solve for a variable.

1. If the variable has an adding operation in your equation, you will need to subtract.
2. If the variable has a subtracting operation in your equation, you will need to add.
3. If the variable has a multiplying operation in your equation, you will need to divide
4. If the variable has a dividing operation in your equation, you will need to multiply.

Generally speaking doing the opposite operation for the addition or subtraction step first is the simplest way to solve the equation.

Good luck in the Courtroom! I know your arguments for each step will convince the judge to rule in your favor!

$$2x + 5 = 9$$

Justification for Step 1 \_\_\_\_\_

\_\_\_\_\_

Justification for Step 2: \_\_\_\_\_

\_\_\_\_\_

$$6y - 8 = 10$$

Justification for Step 1: \_\_\_\_\_

\_\_\_\_\_

Justification for Step 2: \_\_\_\_\_

\_\_\_\_\_

$$-3z - 4 = 8$$

Justification for Step 1: \_\_\_\_\_

\_\_\_\_\_

Justification for Step 2: \_\_\_\_\_

\_\_\_\_\_

Directions:

You are the lawyer in a high-profile Algebra court case. Solve the following equations and justify each of your steps in writing. Write your calculations below each problem, and write your justifications to the right of each problem. Your client is depending on your expertise, so write clearly with proper spelling and grammar.

1.)  $5x + 3 = 18$

Justification for Step 1 \_\_\_\_\_

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Justification for Step 2: \_\_\_\_\_

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2.)  $\frac{x}{4} - 5 = 1$

Justification for Step 1: \_\_\_\_\_

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Justification for Step 2: \_\_\_\_\_

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3.)  $-4x + 2 = -14$

Justification for Step 1: \_\_\_\_\_

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Justification for Step 2: \_\_\_\_\_

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4.)  $8 - \frac{x}{3} = 1$

Justification for Step 1: \_\_\_\_\_

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Justification for Step 2: \_\_\_\_\_

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5.)  $5 - x = -1$

Justification for Step 1: \_\_\_\_\_

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Justification for Step 2: \_\_\_\_\_

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