

What is the value of  $k$  in the equation  $k + 34 = 61$ ?

- a. 27
- b. 32
- c. 31
- d. 25

Billy solved an equation incorrectly, as shown below:

Step 1:  $41 + n = 66$ ?

Step 2:  $n = 66 + 41$

Step 3:  $n = 25$

Which statement **best** explains why Step 2 is incorrect in Billy's solution?

- a. He did not add 41 to 66.
- b. He did not multiply 66 by 41.
- c. He did not divide 66 by 41.
- d. He did not subtract 41 from 66.

How many solutions can be found in the equation  $-21k + 6 = 3(k - 8k) + 6$ ?

- a. Two
- b. One
- c. Infinitely many
- d. Zero

What is the value of  $t$  in the equation  $5(2t + 45) = 575$ ?

- a. 32
- b. 37
- c. 35
- d. 40

An equation is shown below:  
 $4(6k - 7) = 68$

Which of the following correctly shows the beginning steps to solve this equation?

- |  |   |
|--|---|
| a. Step 1: $24k - 7 = 68$<br>Step 2: $10k = 75$  | c. Step 1: $24k - 7 = 68$<br>Step 2: $24k = 75$ |
| b. Step 1: $24k - 28 = 68$<br>Step 2: $24k = 96$ | d. Step 1: $6k - 3 = 68$<br>Step 2: $6k = 71$   |

The steps below show the incomplete solution to find the value of  $x$  in the equation.

$$7x - 3x - 4 = 6 + 8$$

$$\text{Step 1: } 7x - 3x - 4 = 6 + 8$$

$$\text{Step 2: } 7x - 3x - 4 = 14$$

$$\text{Step 3: } 4x - 4 = 14$$

Which of these is **most** likely the next step?

- |              |              |
|--------------|--------------|
| a. $4x = 10$ | c. $4x = 4$  |
| b. $4x = 18$ | d. $4x = 14$ |

How many solutions can be found in the equation  $36 + 9p = 35 + 9p$ ?

- |                    |        |
|--------------------|--------|
| a. Zero            | c. Two |
| b. Infinitely many | d. One |

What is the value of  $t$  in the equation  $6t + 2(t + 4) = 7t + 36$ ?

- |       |       |
|-------|-------|
| a. 27 | c. 28 |
| b. 24 | d. 33 |

What is the value of  $p$  in the equation  $2p = -44 + 2p + 2p - 18$ ?

- a. 36
- b. 34
- c. 31
- d. 30

What is the value of  $t$  in the equation  $2t + 2(t + 3 + 5) = 2t + 68$ ?

- a. 32
- b. 22
- c. 27
- d. 26

How many solutions can be found in the equation  $-37n + 9 = 6(n - 7n) + 6$ ?

- a. Two
- b. One
- c. Zero
- d. Infinitely many

Which of these is the simplified form of the equation  $16p + 3 = 87 + 8p + 4p$ ?

- a.  $7p = 81$
- b.  $4p = 84$
- c.  $4p = 81$
- d.  $7p = 84$

What is the value of  $p$  in the equation  $3p = -8(p + 3) + 9p + 86$ ?

- a. 31
- b. 30
- c. 37
- d. 27

An equation is shown below:

$$4(7t - 6) = 116$$

Which of the following correctly shows the beginning steps to solve this equation?

- a. Step 1:  $28t - 24 = 116$   
Step 2:  $28t = 140$
- b. Step 1:  $28t - 6 = 116$   
Step 2:  $11t = 122$
- c. Step 1:  $28t - 6 = 116$   
Step 2:  $28t = 122$
- d. Step 1:  $7t - 2 = 116$   
Step 2:  $7t = 118$

How many solutions can be found in the equation  $-21.9n + 5.9 = 7.3(n - 4n) + 5.9$ ?

- a. One
- b. Two
- c. Zero
- d. Infinitely many

What is the solution to the equation?

$$\frac{7}{14}r - \frac{33}{14} = \frac{10}{14}r$$

- a.  $-13$
- b.  $-11$
- c.  $-7$
- d.  $-16$