



## Determining Variable Value to Balance Equations

Name: \_\_\_\_\_

Find the value of x.

1)  $-4x + 68 = 84 - 12x$

2)  $1x + 17 = -5x + 59$

3)  $2x + 31 = 0x + 49$

4)  $-3x + 64 = -13x + 164$

5)  $-4x + 110 = -9x + 145$

6)  $1x + 33 = -9x + 93$

7)  $13 + 4x = 31 + -2x$

8)  $79 + -4x = 143 + -12x$

9)  $1x + 42 = -6x + 70$

10)  $36 + 3x = 1x + 54$

11)  $59 - 5x = -13x + 75$

12)  $-3x + 87 = 136 - 10x$

Answers

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_

11. \_\_\_\_\_

12. \_\_\_\_\_



**Find the value of x.**

$$\begin{aligned} 1) \quad -4x + 68 &= 84 - 12x \\ 8x &= 16 \\ x &\equiv 2 \end{aligned}$$

$$2) \quad 1x + 17 = -5x + 59$$

$$6x = 42$$

$$x = 7$$

$$3) \quad 2x + 31 = 0x + 49$$
$$2x = 18$$
$$x = 9$$

$$4) \quad -3x + 64 = -13x + 164$$
$$10x = 100$$
$$x \equiv 10$$

$$5) \quad -4x + 110 = -9x + 145$$
$$5x = 35$$
$$x \equiv 7$$

$$6) \quad 1x + 33 = -9x + 93$$
$$10x = 60$$
$$x = 6$$

$$7) \quad 13 + 4x = 31 + -2x$$
$$6x = 18$$
$$x = 3$$

$$8) \quad 79 + -4x = 143 + -12x$$
$$8x = 64$$
$$x = 8$$

$$9) \quad 1x + 42 = -6x + 70$$
$$\quad \quad \quad 7x = 28$$
$$\quad \quad \quad x = 4$$

$$10) \quad 36 + 3x = 1x + 54$$
$$2x = 18$$
$$x = 9$$

$$11) \quad 59 - 5x = -13x + 75$$
$$8x = 16$$
$$x = 2$$

$$12) \quad -3x + 87 = 136 - 10x$$
$$7x = 49$$
$$x = 7$$

## Answers

1 2

7

7

3 9

10

5 7

6

7 3

8

4

9

11

7



## Determining Variable Value to Balance Equations

Name: \_\_\_\_\_

Find the value of x.

7  
39  
910  
48  
27  
6Answers

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_

1)  $-4x + 68 = 84 - 12x$

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