

# Solving Multi-Step Equations

## Like Terms - Negative Coefficients

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



Solve the equations.

(1)  $-3x - 8 - x = 8$

(2)  $-9 - 3x + x = 5$

(3)  $3x - 8 + 2x = 12$

(4)  $-3x - 4 + x = 6$

(5)  $-2x + x - 3 = 4$

(6)  $3x - x - 11 = 3$

(7)  $-3x - 2x - 15 = 5$

(8)  $-2x - 13 - 3x = 17$

(9)  $-2x - 4 - x = 8$

(10)  $-3x - x - 8 = 12$

(11)  $x - 2 - 3x = 4$

(12)  $-3x - 3 + x = 5$

(13)  $-x - 13 - 3x = 15$

(14)  $-3 - 3x + 2x = 3$

(15)  $-2x - 3x - 8 = 17$

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## ANSWER KEY



Solve the equations.

$$\begin{aligned} (1) \quad -3x - 8 - x &= 8 \\ -8 - 4x &= 8 \\ -4x &= 16 \\ x &= -4 \end{aligned}$$

$$\begin{aligned} (2) \quad -9 - 3x + x &= 5 \\ -9 - 2x &= 5 \\ -2x &= 14 \\ x &= -7 \end{aligned}$$

$$\begin{aligned} (3) \quad 3x - 8 + 2x &= 12 \\ -8 + 5x &= 12 \\ 5x &= 20 \\ x &= 4 \end{aligned}$$

$$\begin{aligned} (4) \quad -3x - 4 + x &= 6 \\ -4 - 2x &= 6 \\ -2x &= 10 \\ x &= -5 \end{aligned}$$

$$\begin{aligned} (5) \quad -2x + x - 3 &= 4 \\ -3 - x &= 4 \\ -x &= 7 \\ x &= -7 \end{aligned}$$

$$\begin{aligned} (6) \quad 3x - x - 11 &= 3 \\ -11 + 2x &= 3 \\ 2x &= 14 \\ x &= 7 \end{aligned}$$

$$\begin{aligned} (7) \quad -3x - 2x - 15 &= 5 \\ -15 - 5x &= 5 \\ -5x &= 20 \\ x &= -4 \end{aligned}$$

$$\begin{aligned} (8) \quad -2x - 13 - 3x &= 17 \\ -13 - 5x &= 17 \\ -5x &= 30 \\ x &= -6 \end{aligned}$$

$$\begin{aligned} (9) \quad -2x - 4 - x &= 8 \\ -4 - 3x &= 8 \\ -3x &= 12 \\ x &= -4 \end{aligned}$$

$$\begin{aligned} (10) \quad -3x - x - 8 &= 12 \\ -8 - 4x &= 12 \\ -4x &= 20 \\ x &= -5 \end{aligned}$$

$$\begin{aligned} (11) \quad x - 2 - 3x &= 4 \\ -2 - 2x &= 4 \\ -2x &= 6 \\ x &= -3 \end{aligned}$$

$$\begin{aligned} (12) \quad -3x - 3 + x &= 5 \\ -3 - 2x &= 5 \\ -2x &= 8 \\ x &= -4 \end{aligned}$$

$$\begin{aligned} (13) \quad -x - 13 - 3x &= 15 \\ -13 - 4x &= 15 \\ -4x &= 28 \\ x &= -7 \end{aligned}$$

$$\begin{aligned} (14) \quad -3 - 3x + 2x &= 3 \\ -3 - x &= 3 \\ -x &= 6 \\ x &= -6 \end{aligned}$$

$$\begin{aligned} (15) \quad -2x - 3x - 8 &= 17 \\ -8 - 5x &= 17 \\ -5x &= 25 \\ x &= -5 \end{aligned}$$