

# Answer Key

## Combining Like Terms to Solve

Solve for  $x$ . Show all your work/steps!!

1.)  $24 = 5x - 2 + 2x + 5$

$$24 = 7x + 3$$

-3            -3

$$\frac{21}{7} = \frac{7x}{7}$$

$$3 = x \quad x = 3$$

2.)  $-1x + 4 + 2 + 7x = 54$

$$6x + 6 = 54$$

-6        -6

$$\frac{6x}{6} = \frac{48}{6}$$

$$x = 8$$

3.)  $-2x + 8 + 7x + 2 = 25$

$$5x + 10 = 25$$

-10   -10

$$5x = 15$$

$\frac{5}{5}$     $\frac{15}{5}$

$$x = 3$$

5.)  $20 = 5x + 4x + 4 - 2$

$$20 = 9x + 2$$

-2            -2

$$\frac{18}{9} = \frac{9x}{9}$$

$$x = 2$$

7.)  $-9 - 5x + 6x = 1$

$$-9 + 1x = 1$$

+9            +9

$$\frac{1x}{1} = \frac{10}{1}$$

$$x = 10$$

9.)  $4x + 10 + 5x - 1 = 9$

$$9x + 9 = 9$$

-9        -9

$$9x = 0$$

$\frac{9}{9}$     $\frac{0}{9}$

$$x = 0$$

4.)  $104 = 6x + 5x - 6$

$$104 = 11x - 6$$

+6            +6

$$\frac{110}{11} = \frac{11x}{11}$$

$$10 = x$$
$$x = 10$$

6.)  $3x + 5 + 7x + 5 = 70$

$$10x + 10 = 70$$

-10   -10

$$\frac{10x}{10} = \frac{60}{10}$$

$$x = 6$$

8.)  $21 = 2 + 6x + 2x + 3$

$$21 = 8x + 5$$

-5            -5

$$\frac{16}{8} = \frac{8x}{8}$$

$$x = 2$$

10.)  $12 = x + 3x - 4$

$$12 = 4x - 4$$

+4            +4

$$16 = 4x$$

$\frac{16}{4}$     $\frac{4x}{4}$

$$4 = x$$

$$x = 4$$