

Solving For An Unknown Variable

Directions: Find the value of each variable in the following equations. Show your work!

1) $9y + 8 = 4y + 3$

$$y = -1$$

2) $5a + 6(2 - a) = -6$

$$a = 18$$

3) $\frac{2}{5}x - \frac{3}{10} = \frac{1}{4}x + 3$

$$x = -2$$

4) $7x - 2 = 12x - 12$

$$x = 2$$

5) $9b + 2(6 - b) = -9$

$$y = -3$$

6) $\frac{7}{8}x + \frac{5}{7} = \frac{1}{2}x + 6\frac{5}{7}$

$$x = 16$$

7) $6x + 3 = 14x - 9$

$$x = 1.5 \text{ or } 1\frac{1}{2}$$

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

$$y = 14$$

9) $\frac{2}{3}x - \frac{1}{6} = \frac{3}{4}x + 4$

$$x = 50$$

10) $4.5r + 4 = 10.5r - 14$

$$r = 3$$

11) $4p - 20 = -6p + 5.5$

$$p = 2.55$$

12) $\frac{9}{10}w - \frac{1}{2} = \frac{2}{5}w + 3$

$$w = 7$$