

Name: _____

Date: _____ Score: _____

Solving Equations with Variables on Both sides

Solve each equation.

1 $-4q - 3 = -9 + 7q$

2 $-p - 9p = 5p - 4$

3 $-4x - 14 = 7(-2 - 4x) + 4x$

4 $18 - 4n = -8 + 4(n - 2)$

5 $-6y + 7(1 - y) = -4(y - 4)$

6 $4(a - 6) = -5a - (7 + 4a)$

7 $4r + 8 + 4 = -16 - 4r$

8 $3v + 3 = 4v + 4$

9 $6l + 2 + l - 3 = 8l - 8$

10 $40 - t = 4(-3 - 6t) + 6$

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Answers

$$\boxed{1} \quad -4q - 3 = -9 + 7q$$

$$q = \frac{6}{11}$$

$$\boxed{2} \quad -p - 9p = 5p - 4$$

$$p = \frac{4}{15}$$

$$\boxed{3} \quad -4x - 14 = 7(-2 - 4x) + 4x$$

$$x = 0$$

$$\boxed{4} \quad 18 - 4n = -8 + 4(n - 2)$$

$$n = 4\frac{1}{4}$$

$$\boxed{5} \quad -6y + 7(1 - y) = -4(y - 4)$$

$$y = -3$$

$$\boxed{6} \quad 4(a - 6) = -5a - (7 + 4a)$$

$$a = 1\frac{4}{13}$$

$$\boxed{7} \quad 4r + 8 + 4 = -16 - 4r$$

$$r = -3\frac{1}{4}$$

$$\boxed{8} \quad 3v + 3 = 4v + 4$$

$$v = -1$$

$$\boxed{9} \quad 6l + 2 + l - 3 = 8l - 8$$

$$l = 7$$

$$\boxed{10} \quad 40 - t = 4(-3 - 6t) + 6$$

$$t = -2$$