

Name: _____

Multi-Step Equations: Integers

Solve each equation.

1 $-2(3n + 9) = 30$

2 $9p + 9 - 5 = -12 + 6p$

3 $18n - 6(-4n - 6) = 18 + 8n$

4 $1 + 8p - 4p + 5 = 2(p - 3) - 2(p - 2)$

5 $-8x + 16 = -16x + 32$

6 $16(5 - 4v) = -5 - v$

7 $-12 = 2(2x + 4) - (7 - 3x)$

8 $-7r - 3r = -13 - 7 - r$

9 $16 + 32q + 4 = -32q + 40$

10 $-6x + 14 = 1 - 8x$

Name: _____

Multi-Step Equations: Integers

Answers

1 $-2(3n + 9) = 30$

$$n = -8$$

2 $9p + 9 - 5 = -12 + 6p$

$$p = -5\frac{1}{3}$$

3 $18n - 6(-4n - 6) = 18 + 8n$

$$n = -\frac{9}{17}$$

4 $1 + 8p - 4p + 5 = 2(p - 3) - 2(p - 2)$

$$p = -\frac{3}{4}$$

5 $-8x + 16 = -16x + 32$

$$x = 2$$

6 $16(5 - 4v) = -5 - v$

$$v = 1\frac{17}{63}$$

7 $-12 = 2(2x + 4) - (7 - 3x)$

$$x = -1\frac{6}{7}$$

8 $-7r - 3r = -13 - 7 - r$

$$r = 2\frac{2}{9}$$

9 $16 + 32q + 4 = -32q + 40$

$$q = \frac{5}{16}$$

10 $-6x + 14 = 1 - 8x$

$$x = -6\frac{1}{2}$$