

Solving Equations Worksheet

1) $4n - 2n = 12$

8) $-3(1 + 6r) = 14 - r$

2) $-12 = 2 + 4y$

9) $6(6v + 6) - 5 = 1 + 6v$

3) $6 = -3(x + 2)$

10) $-4k + 2(5k - 6) = -3k - 39$

4) $24 = 6(-x - 3)$

11) $9p + 9 - 1 = -2(2p + 4) - 3(2p - 2)$

5) $-1 = -3r + 2r$

12) $-10n + 3(8 + 8n) = -6(n - 4)$

6) $-3(4r - 8) = -36$

13) $10(x + 3) - (-9x + 4) = x - 5 + 3$

7) $75 = 3(-6r - 5)$

14) $-11 + 10(2 + 10) = 4 - 5(2p + 11)$

Solving Equations Worksheets

1) $4n - 2 = 4$ - combine like terms
 $4n = 6$ - Divide
 $n = \frac{6}{4}$

$n = 2$

2) $-1 = 2 + 7v$ - add/sub constants
 $-1 - 2 = 7v$
 $-3 = 7v$ - Divide
 $v = \frac{-3}{7}$

$v = -\frac{3}{7}$

3) $6 = -3(x + 2)$ - Distribute
 $6 = -3x - 6$ - add/sub constants
 $12 = -3x$ - Divide
 $x = -4$

$x = -4$

4) $24 = 6(-x - 3)$ - Distribute
 $24 = -6x - 18$ - add/sub constants
 $42 = -6x$ - Divide
 $x = -7$

$x = -7$

5) $-1 = -3r + 2r$ - combine like terms
 $-1 = -r$ - Divide
 $r = 1$

$r = 1$

6) $-3(r - 8) = -36$ - Distribute
 $-3r + 24 = -36$ - add/sub constants
 $-3r = -60$ - Divide
 $r = 20$

$r = 20$

7) $75 = 3(-6n - 5)$ - Distribute
 $75 = -18n - 15$ - add/sub constants
 $90 = -18n$ - Divide
 $n = -5$

$n = -5$

8) $-3(1 + r) = 14 - r$
 $-3 - 3r = 14 - r$
 $-3 - 17 = -r$
 $-20 = -r$
 $r = 20$

9) $6(6v + 3) = 5 = 1 + 6v$
 $36v + 18 = 1 + 6v$
 $30v - 3 = 6v$
 $24v = 3$
 $v = \frac{3}{24} = \frac{1}{8}$

10) $-4k + 6 = -6 = -3k$
 $-4k + 6 - 6 = -6 - 6$
 $-4k = -12$
 $k = 3$

11) $9p + 1 = -2(p + 3) - 3(2p - 2)$
 $9p + 1 = -2p - 6 - 6p + 6$
 $9p + 1 = -8p$
 $17p = -1$
 $p = -\frac{1}{17}$

12) $-10n + 8n = -6(n - 4)$
 $-2n = -6n + 24$
 $4n = 24$
 $n = 6$

13) $10(x + 4) = -9x - 4 = -5 + 3$
 $10x + 40 = -9x - 4$
 $19x = -44$
 $x = -\frac{44}{19}$

14) $-11 + 10(p + 10) = 4 - 5(2p + 11)$
 $-11 + 10p + 100 = 4 - 10p - 55$
 $110 + 10p - 11 = -10p - 51$
 $100 + 10p = -10p - 51$
 $20p = -151$
 $p = -\frac{151}{20}$