Solving & Manipulating Equations

Solve each equation.

1) $-20 = -4x - 6x$

2) $6 = 1 - 2n + 5$

3) $8x - 2 = -9 + 7x$

4) $a + 5 = -5a + 5$

5) $4m - 4 = 4m$

6) $p - 1 = 5p + 3p - 8$

7) $5p - 14 = 8p + 4$

8) $p - 4 = -9 + p$

9) $-8 = -(x + 4)$

10) $12 = -4(-6x - 3)$

11) $14 = -(p - 8)$

12) $-18 - 6k = 6(1 + 3k)$

13) $2(4x - 3) - 8 = 4 + 2x$

16) $\frac{-4(1-x)}{3} = \frac{x}{2}$

14) $4(2x + 3) = 8x + 12$

17) $-(1 + 7x) - 6(-7 - x) = 36$

15) $\frac{-2x}{5} = \frac{x}{7}$

Solve for the indicated variable.

1) $9x - 6y = 3$; solve for x

3) $2(6x - 1) + 3y - 3x + 12 = 5$; solve for y

2) $5(2y + \frac{1}{5}) + 4y + 9x = 1$; solve for y

4) $-6y - x + 7 = 10y + \frac{1}{2}(12x - 12y)$; solve for x