

Name: KEY
Date: _____

6.2A Worksheet

Simplify

1) $3(x+4)$
 $3x+12$

2) $-2(y+9)$
 $-2y-18$

3) $4(m-2)$
 $4m-8$

4) $-3(p-5)$
 $-3p+15$

5) $7(-y+3)$
 $-7y+21$

6) $-1(-x-4)$
 $=1x+4$
 $=x+4$

7) $2(x^2-6x+8)$
 $2x^2-12x+16$

8) $-4(m^2+2m-4)$
 $-4m^2-8m+16$

9) $5(x+7)+2(x+1)$
 $5x+35+2x+2$
 $7x+37$

10) $-3(m-2)-1(m+1)$
 $-3m+6-1m-1$
 $-4m+5$

11) $-6(w+3)-2(-w-2)$
 $-6w-18+2w+4$
 $-4w-14$

Solve. Show all work.

12) $2(x+1) = -10$
 $2x+2 = -10$
 $\quad \quad \quad -2$
 $2x = -12$
 $\quad \quad \quad \frac{-12}{2}$
 $x = -6$

13) $2(y+3)-5 = 6-3y$
 $2y+6-5 = 6-3y$
 $2y+1 = 6-3y$
 $\quad \quad \quad +3y$
 $5y+1 = 6$
 $\quad \quad \quad -1$
 $4y = 5$
 $\quad \quad \quad \frac{5}{4}$
 $y = 1$

Solve. Show all work.

$$14) 5(2m-3) = 2(-3m-2) + 5$$

$$10m-15 = -6m-4+5$$

$$10m-15 = -6m+1$$

$$16m - \cancel{15} = \cancel{1} + 15$$

$$\frac{16m}{16} = \frac{16}{16}$$

$$m=1$$

$$15) 4(p-7) - 2(p+3) = -15p$$

$$4p-28-2p-6 = -15p$$

$$2p-34 = -15p$$

$$\frac{-34}{-17} = \frac{-17p}{-17}$$

$$2 = p$$

$$16) 7(2y-1) - 2(5y-6) = 2(4y-5) + 7$$

$$14y-7-10y+12 = 8y-10+7$$

$$4y+5 = 8y-3$$

$$-4y+5 = -3$$

$$-4y = -8$$

$$y=2$$

$$17) 2(n-8) - (n-4) = 3(n+5) + 3$$

$$2n-16-n+4 = 3n+15+3$$

$$n-12 = 3n+18$$

$$-3n = 30$$

$$-2n - \cancel{12} = 18 + 12$$

$$-2n = 30$$

$$n = -15$$