Name Key Period ____ Date _____

Algebra 1

Lesson 4.1 (Part 2) – Writing Equations in Standard Form

REMINDER: ***Linear Equations in Standard Form*** $Ax + By = C$

Important facts:

a. A must be positive

b. A, B, and C cannot be fractions or decimals

EXAMPLES

Write the given linear equations in standard form.

1. $y = 2x - 6$

$-2x \quad -2x$

$-2x + y = -6$

-1

$2x - y = 6$

2. $x = 5y + 7$

$-5y \quad -5y$

$x - 5y = 7$

3. $4x - y - 7 = 0$

$+7 \quad +7$

$4x - y = 7$

4. $y + 11 = 3x$

$-y \quad -y$

$11 = 3x - y$

$3x - y = 11$

5. $\left(y = \frac{1}{2}x + 4\right)^2$

$2y = x + 8$

$-x \quad -x$

$-x + 2y = 8$

-1

$x - 2y = -8$

6. $\left(x = -\frac{2}{3}y - 9\right)^3$

$3x = -2y - 27$

$+2y \quad +2y$

$3x + 2y = -27$

7. $\left(\frac{1}{2}x - \frac{2}{3}y = 5\right)^6$

$3x - 4y = 30$

Multiply by the LCD

8. $\left(\frac{x}{3} + \frac{5}{6}y = -2\right)^6$

$2x + 5y = -12$

$\frac{1}{2} \cdot \frac{6}{1} = 3$

$\frac{2}{3} \cdot \frac{6}{1} = \frac{12}{3} = 4$

$\frac{1}{3} \cdot \frac{6}{1} = \frac{6}{3} = 2$

$\frac{5}{6} \cdot \frac{6}{1} = 5$

9. $\left(y = \frac{3}{4}x - \frac{1}{8}\right)^8$

$\frac{3}{4} \cdot \frac{8}{1} = 6$

$8y = 6x - 1$

$-6x \quad -6x$

$-6x + 8y = -1$

-1

$6x - 8y = 1$

10. $\left(x = -\frac{7}{9}y + \frac{1}{6}\right)^{18}$

$18x = -14y + 3$

$+14y \quad +14y$

$18x + 14y = 3$