

Standard Form

CHAPTER 5 SECTION 6

Standard Form



- Standard Form:

$$Ax + By = C$$

- No fractions
- X and Y are on same side

- Examples:

$$2x + 3y = 5 \quad 10x - 4y = 15$$

Write in Standard Form

$$\bullet 1. 2x - 4y - 7 = 12$$

$$+7 \quad +7$$
$$2x - 4y = 19$$

$$\bullet 2. -9y - 6x + 4 = 0$$

$$-H \quad -4$$
$$-6x - 9y = -4$$

Writing in Standard Form from $y=mx+b$



- Steps:

- Bring the coefficient and x to the y
 - Example: $y = 2x - 6 \longrightarrow -2x + y = -6$
 $\cancel{-2x} \quad \cancel{-2x}$
- X and Y are on the same side, and the X comes before the Y

Examples: Write in Standard Form

- 1. $y = -3x + 5$

$$+3x \quad +3x$$

$$3x + y = 5$$

- 2. $y = 4x - 10$

$$-4x \quad -4x$$

$$-4x + y = -10$$

Examples: Write in Standard Form

• 3. $y = \frac{2}{3}x + 2$

$$\begin{aligned}3y &= 2x + 6 \\-2x &\quad -2x \\-2x + 3y &= 6\end{aligned}$$



• 4. $y = \frac{-4}{5}x - 1$

$$\begin{aligned}5y &= -4x - 5 \\+4x &\quad +4x \\4x + 5y &= -5\end{aligned}$$

Writing in Standard Form From Point-Slope Form



- Steps:

- If given slope intercept form:
 - 1. Distribute the “m”
 - 2. Bring the x to the y
 - 3. Bring the number with the y to the other side with the “c”

- Example:

$$y - 1 = 2(x + 3) \rightarrow y - 1 = 2x + 6$$



$$-2x + y = 6 + 1 \rightarrow -2x + y = 7$$

Write in Standard Form

$$\bullet 3 \cdot y + 3 = 2(x - 4)$$

$$y + 3 = 2x - 8$$
$$-2x \quad -2x$$

$$-2x + y + 3 = -8$$
$$-5 \quad -3$$

$$-2x + y = -11$$

$$\bullet 4 \cdot y - 5 = -1(x - 2)$$

$$y - 5 = -x + 2$$


$$x + y = 7$$

Class Work



- Complete Worksheet

Homework



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