Lesson 1.5.2: Forms of Linear Equations

A Linear Equation is an equation in two variables which can be written in two forms:

• Standard Form: Ax + By = C, where A > 0, $B \neq 0$, and A, B, Care integers

Slope-Intercept Form: y = mx + b, where m is the slope, b is the y-intercept, and m, b are real numbers

Practice Exercises 1.5.2

A. Rewrite the following equations in the form Ax + By = C.

$$y = -x + 4$$

4.
$$y = \frac{2}{3}x - 3$$

2.
$$y = 5x + 7$$

4.
$$y = \frac{7}{3}x - 3$$

3.
$$y = \frac{1}{2}x$$

4.
$$y = \frac{2}{3}x - 3$$

5. $y = \frac{5}{2}x + \frac{3}{2}$

B. Rewrite the following equations in the form
$$y=mx+b$$
 and identify the values of m and b .

1.
$$2x + y = 9$$

4.
$$-3x + 3y -$$

2.
$$3x - y = 2$$

4.
$$-3x + 3y - 1 = 0$$

5. $\frac{5}{2}x + \frac{2}{3}y - 5 = 0$

3.
$$3x + \frac{1}{2}y = 4$$

Activity 1.5.2

A. Rewrite the following equations in the form
$$Ax + By = C$$
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1.
$$y = -2x + 6$$

2. $y = 3x - 8$

4.
$$y = 2x + \frac{1}{4}$$

3.
$$y = \frac{1}{2}x + 3$$

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B. Rewrite the following equations in the form
$$y=mx+b$$
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1.
$$x + 2y = 4$$

2. $5x + 2y = 7$

4.
$$\frac{2}{3}x - \frac{1}{3}y = 1$$

5. $\frac{2}{3}x - \frac{1}{5}y = \frac{3}{5}$

3.
$$5x - 7y = 2$$

$$5. \ \frac{2}{3}x - \frac{1}{5}y = \frac{3}{5}$$

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5.
$$y = {0 \over 2}x + {0 \over 2}$$

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