Typeset by Jonathan Rufo Bacolod using LaTeX

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, C are 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 $Ax + By = C$.

1. $y = -x + 4$
2. $y = 5x + 7$
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. $2x + y = 9$
2. $3x - y = 2$
3. $3x + \frac{1}{2}y = 4$
4. $-3x + 3y - 1 = 0$
5. $\frac{5}{2}x + \frac{2}{3}y - 5 = 0$

Activity 1.5.2

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

1. $y = -2x + 6$
2. $y = 3x - 8$
3. $y = \frac{1}{2}x + 3$
4. $y = 2x + \frac{1}{4}$
5. $y = \frac{5}{4}x + \frac{3}{8}$

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

1. $x + 2y = 4$
2. $5x + 2y = 7$
3. $5x - 7y = 2$
4. $\frac{2}{3}x - \frac{1}{3}y = 1$
5. $\frac{2}{3}x - \frac{1}{5}y = \frac{3}{5}$

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