

Literacy:

Students will read aloud while other students will analyze the steps on how to graph every linear inequality using slope-intercept form.

$$Y = mx + b$$

Where: m is the slope of a line (+ slope is going up from left to right,

while - slope is going down from left to right)

b is the y-intercept of a line

Graphing Linear Inequalities Using the Slope-Intercept Form:

Graphing linear inequalities is almost the same as graphing linear equations, but with a slight difference.

Example 1 . Graph $4x + 3y < -12$ using the slope =intercept form.

Steps:

1. Rewrite the inequality as an equation by changing the inequality sign into equal sign.

$$4x + 3y = -12$$

2. Convert the equation into slope-intercept form.

$$3y = -4x -12$$

3. Simplify by dividing both sides of the equation by 3.

$$3y/3 = (-4x - 12)/3$$

$$Y = -4/3 x -4$$

4. Locate the y-intercept on the y-axis and trace the slope of a line (m) from $y=mx + b$.

5. Test a point (0,0) to identify the shade of the solution set of the inequality.

If the result is True , shade the side containing (0,0) point.

But if it is False, shade the opposite side of the point (0,0) because that point is NOT solution