

Welcome! Please grab your
ISN
and have a seat! Watch the
edpuzzle in your google
classroom!!



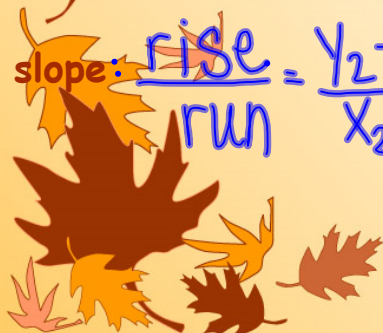
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WWK:

x-intercept: x-coordinate of the point
Where the graph crosses the x-axis
(x, 0)

y-intercept: y-coordinate of the point
where the graph crosses the y-axis
(0, y)

slope: $\frac{\text{rise}}{\text{run}} = \frac{y_2 - y_1}{x_2 - x_1} = m$ how steep a line
is, how fast it goes
up or down



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SLOPE
 $\frac{\text{change in } y}{\text{change in } x} = \frac{\text{rise}}{\text{run}}$
 ex. $(-3, -1)$ to $(2, 4)$ x_1, y_1 to x_2, y_2
 $m = \frac{y_2 - y_1}{x_2 - x_1}$ where $x_2 - x_1 \neq 0$
 $m = \frac{4 - (-1)}{2 - (-3)} = \frac{5}{5} = 1$

SLOPE INTERCEPT FORM
 $y = mx + b$
 $y = \frac{2}{3}x + 1$
 Slope: $\frac{2}{3}$
 y-intercept: 1
 Steps:
 ① Graph the y-intercept $(0, 1)$
 ② From that point apply the slope rise over run

STANDARD FORM
 $Ax + By = C$
 $*A \neq B$ are both not zero
 Steps:
 ① y-intercept $(0, y)$
 ② x-intercept $(x, 0)$

VERTICAL LINE
 Slope = undefined
 Equation is $x = \#$
 $x = -3$

HORIZONTAL LINE
 equation is $y = \#$
 Slope is zero
 $y = 2$

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Example 1 (page 77): Graph

$3x - 4y = 12$

$3(0) - 4y = 12$

$-4y = 12$

$y = -3$

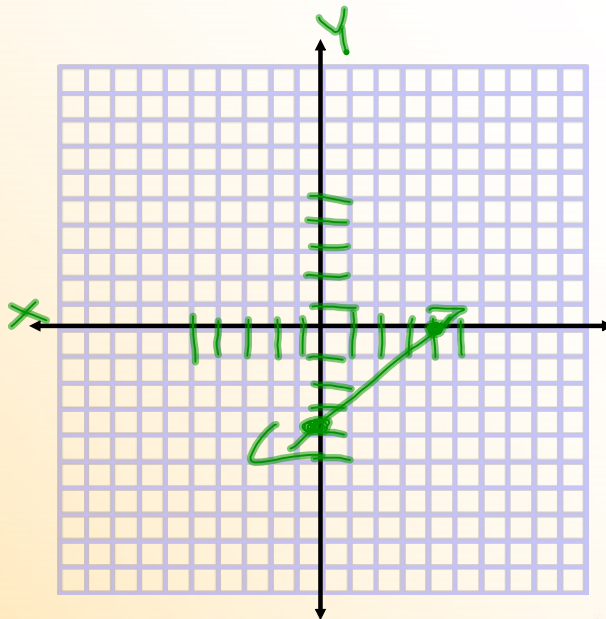
$(0, -3)$

$3x - 4(0) = 12$

$3x = 12$

$x = 4$

$(4, 0)$



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Example 2 (page 77): Find the slope of the line passing through the two points.

$(4, -2)$ & $(-1, 5)$
 x, y x, y

$$m = \frac{5 - (-2)}{-1 - 4} = \frac{7}{-5}$$

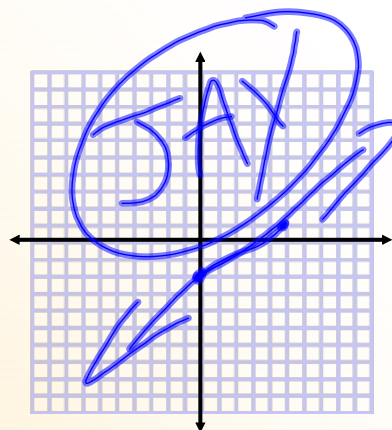


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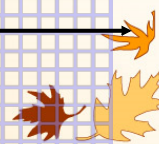
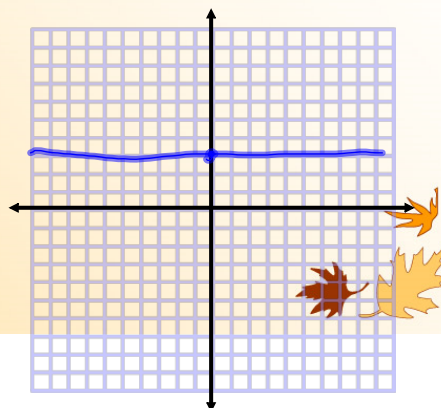
Example 3: Graph $y = \frac{3}{5}x - 2$

$mx + b$

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

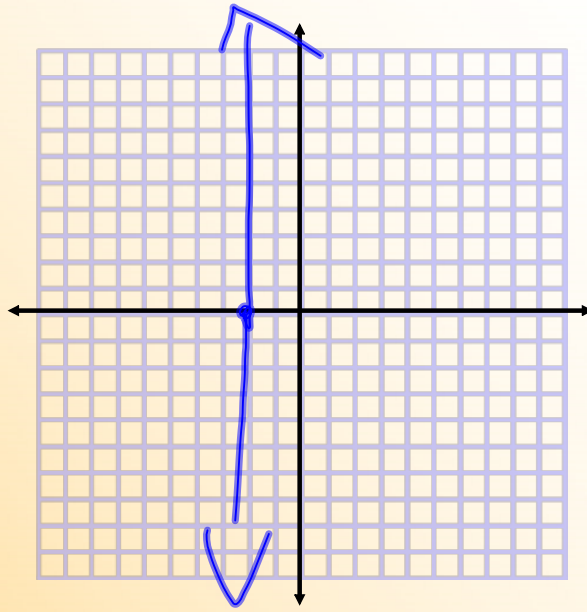


Example 4: Graph $y = 3$



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Example 5: Graph $x = -2$.



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P. 354
#2-46 even

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Nov 2-4:17 PM