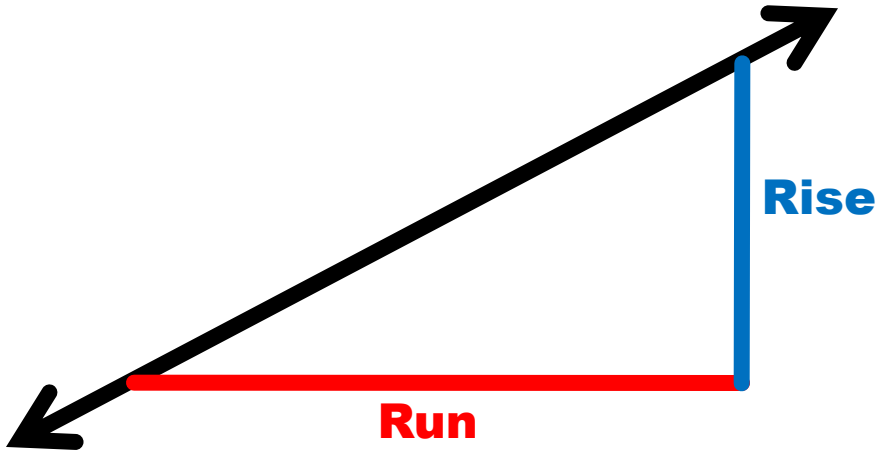
4.2

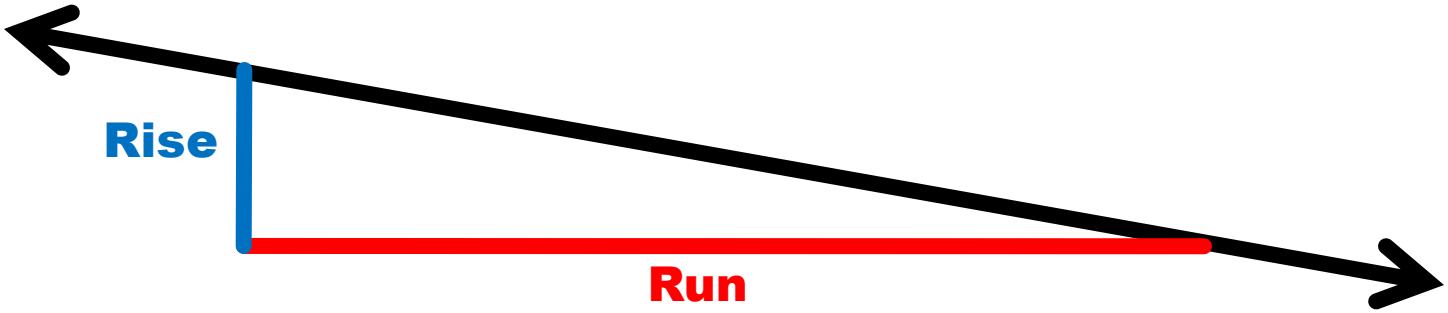
Slope of a Line

SLOPE OF A LINE



$$slope = \frac{rise}{run}$$

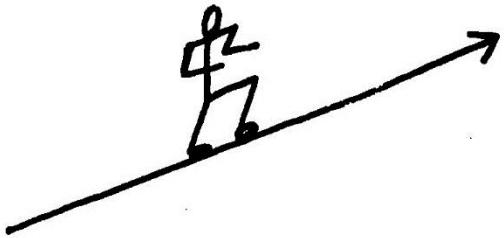
SLOPE OF A LINE



$$slope = \frac{rise}{run}$$

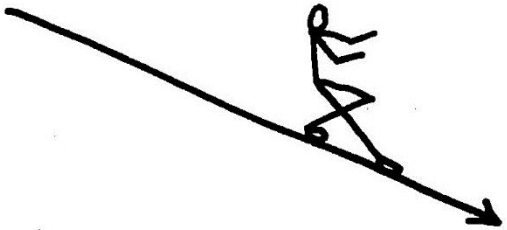
SLOPE OF A LINE

going up



positive slope

going down

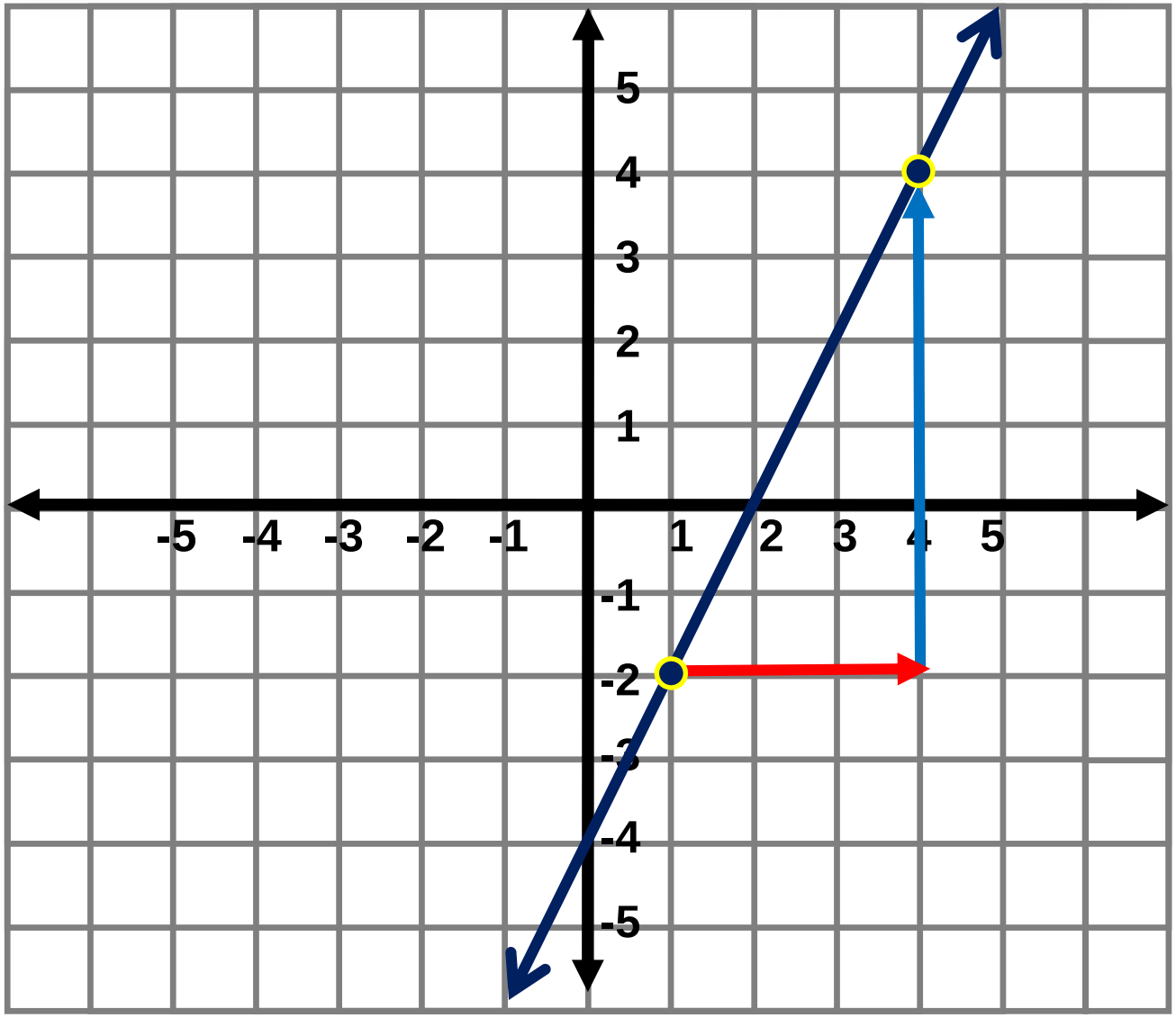


negative slope

level

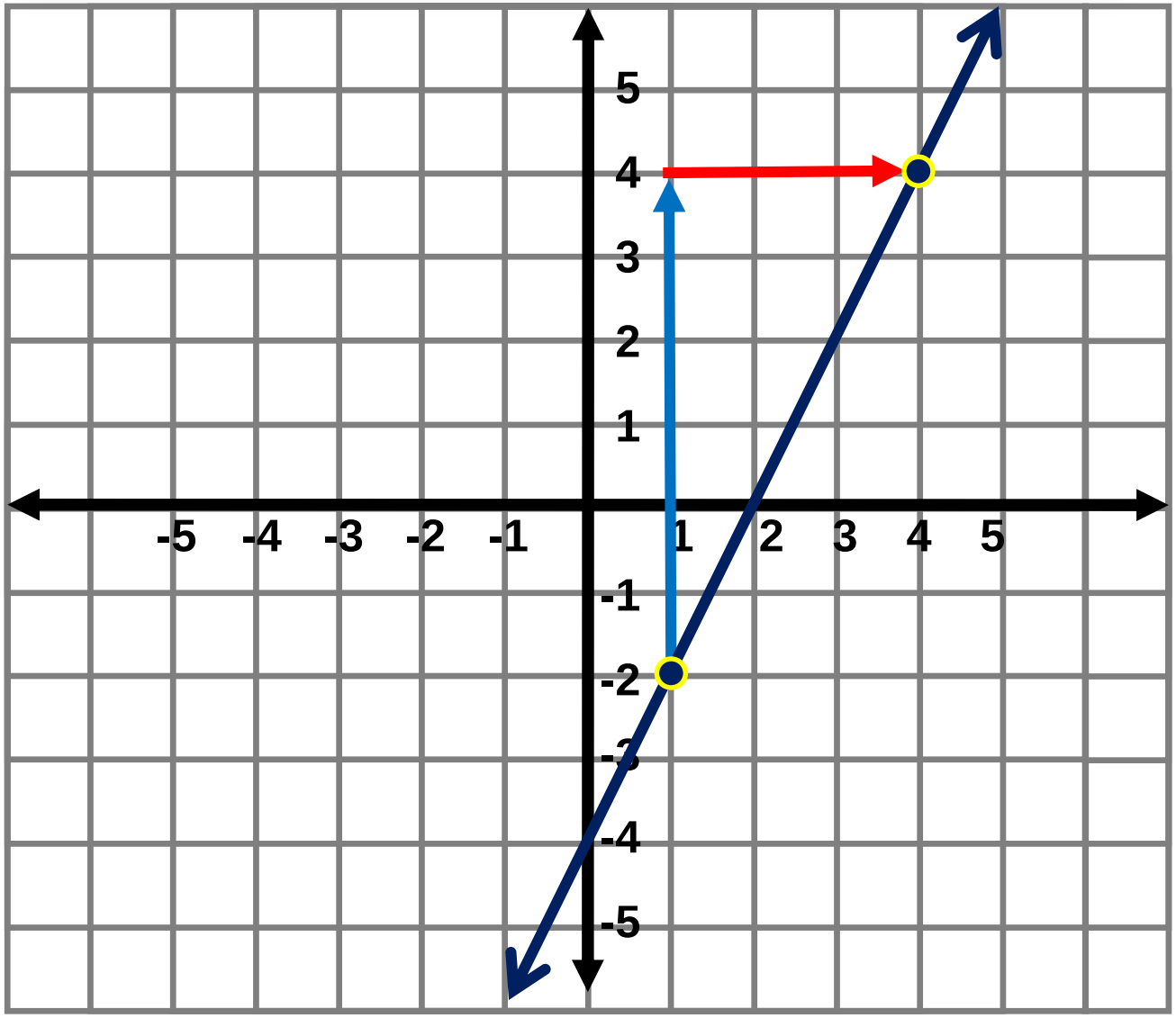
0 slope

SLOPE OF A LINE



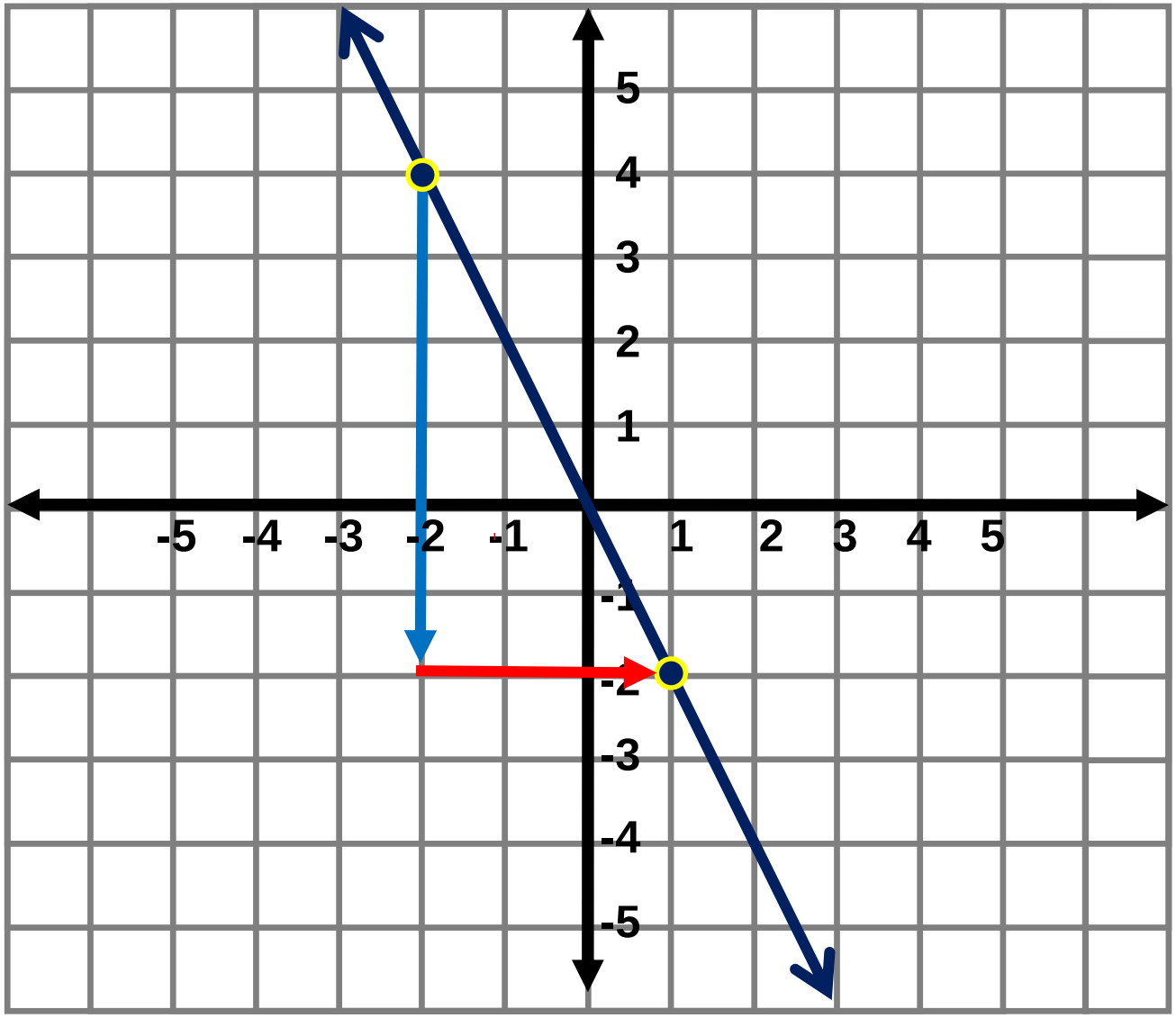
$$slope = \frac{rise}{run}$$

SLOPE OF A LINE



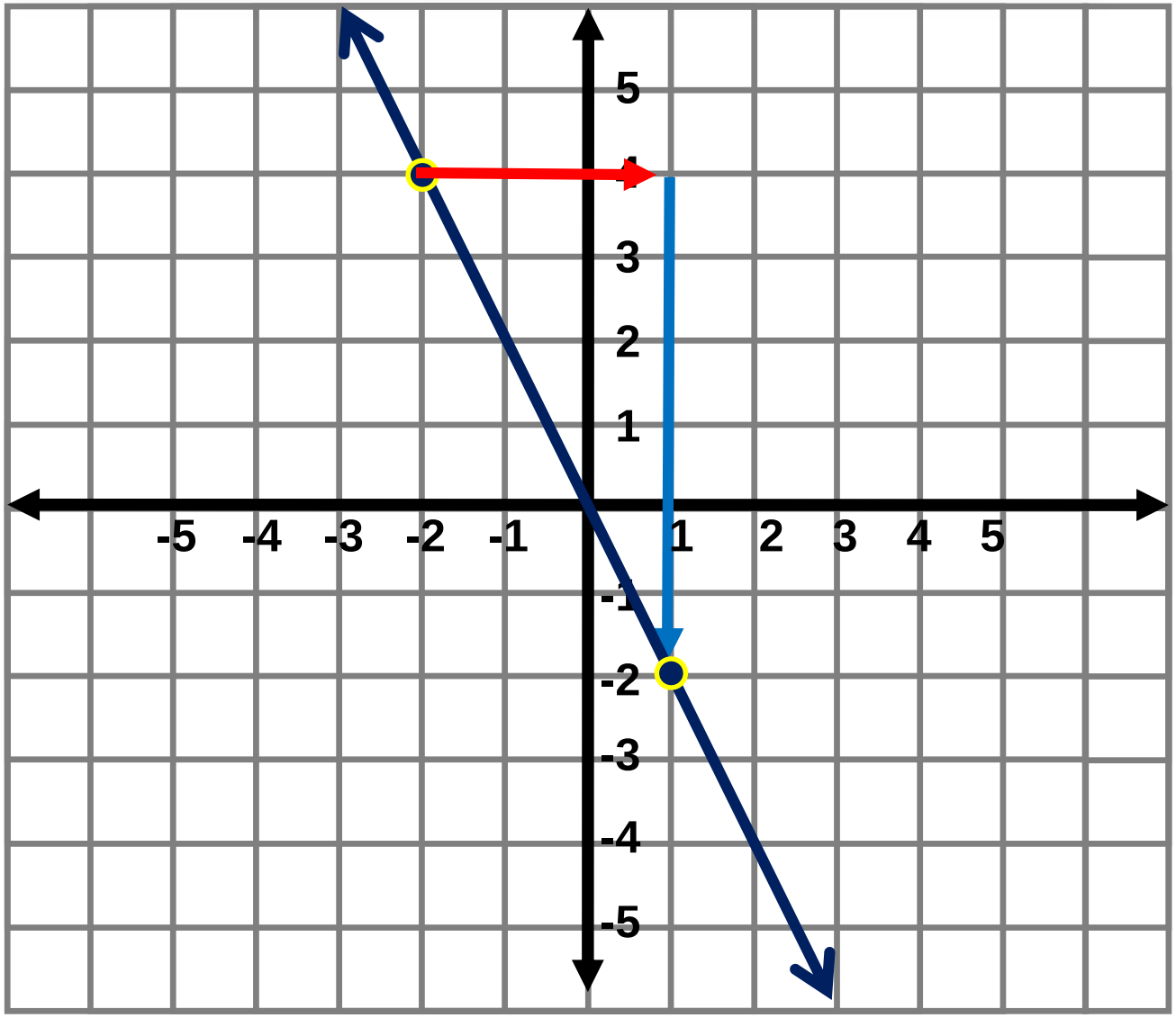
$$slope = \frac{rise}{run}$$

SLOPE OF A LINE



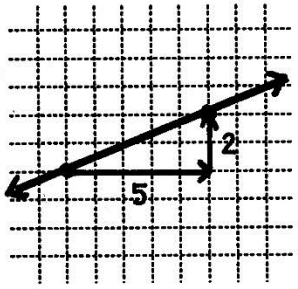
$$slope = \frac{rise}{run}$$

SLOPE OF A LINE



$$slope = \frac{rise}{run}$$

Find the slope of each line. Simplify the slope or write it as an integer if you can.



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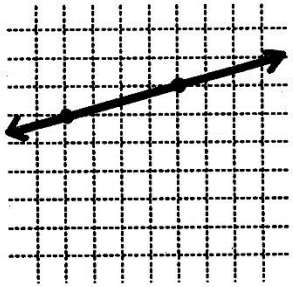

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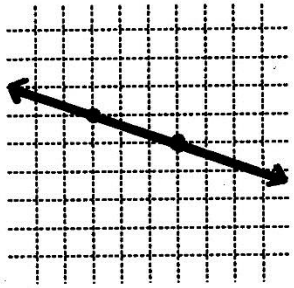

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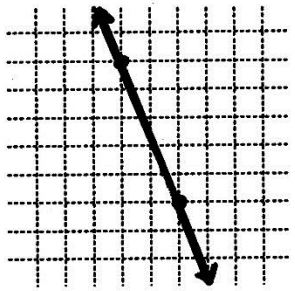

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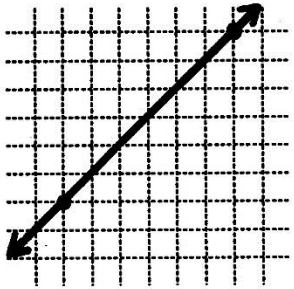

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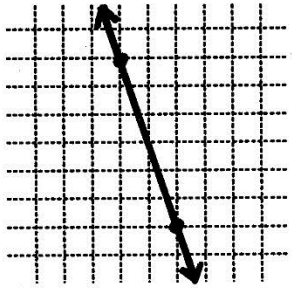

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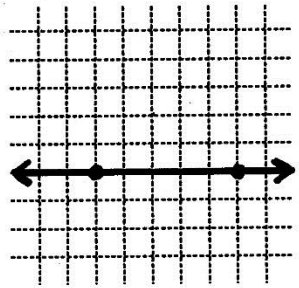
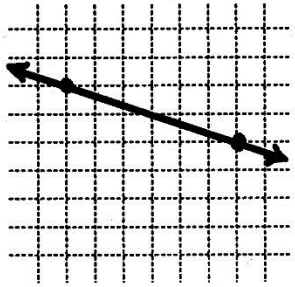


_____



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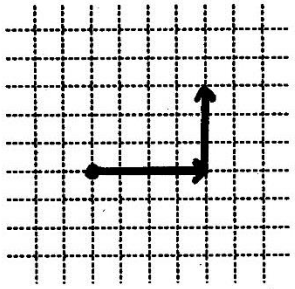
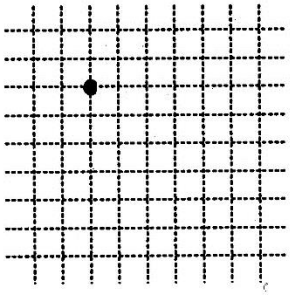
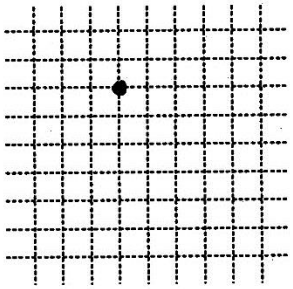
Through each point draw a line that has the slope shown below the grid. Use a ruler.



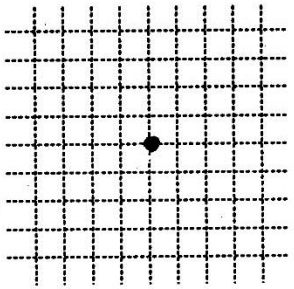
$\frac{3}{4}$



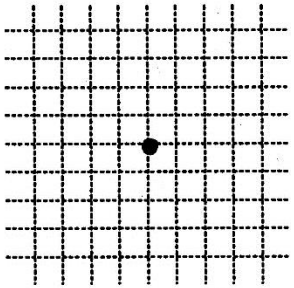
$\frac{-3}{4}$



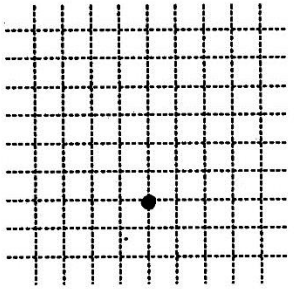
$\frac{-3}{2}$



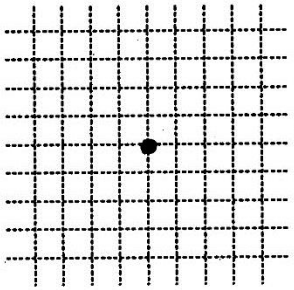
$\frac{3}{2}$



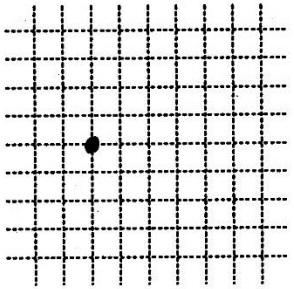
4° 4 equals $\frac{4}{1}$.



$\frac{1}{3}$

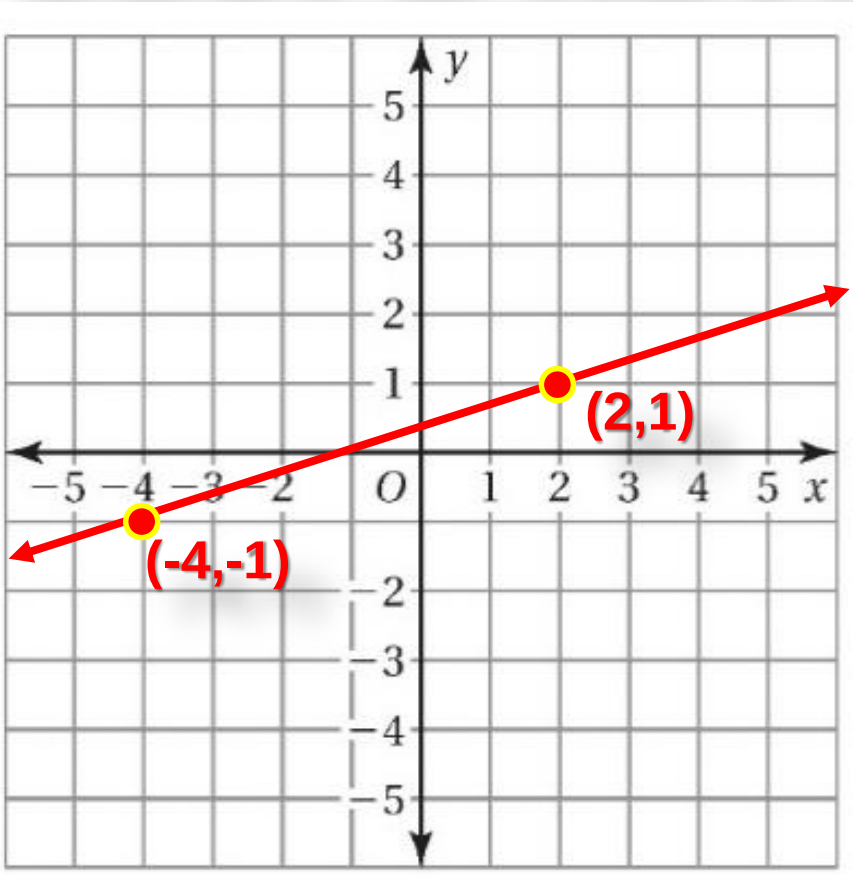


-2



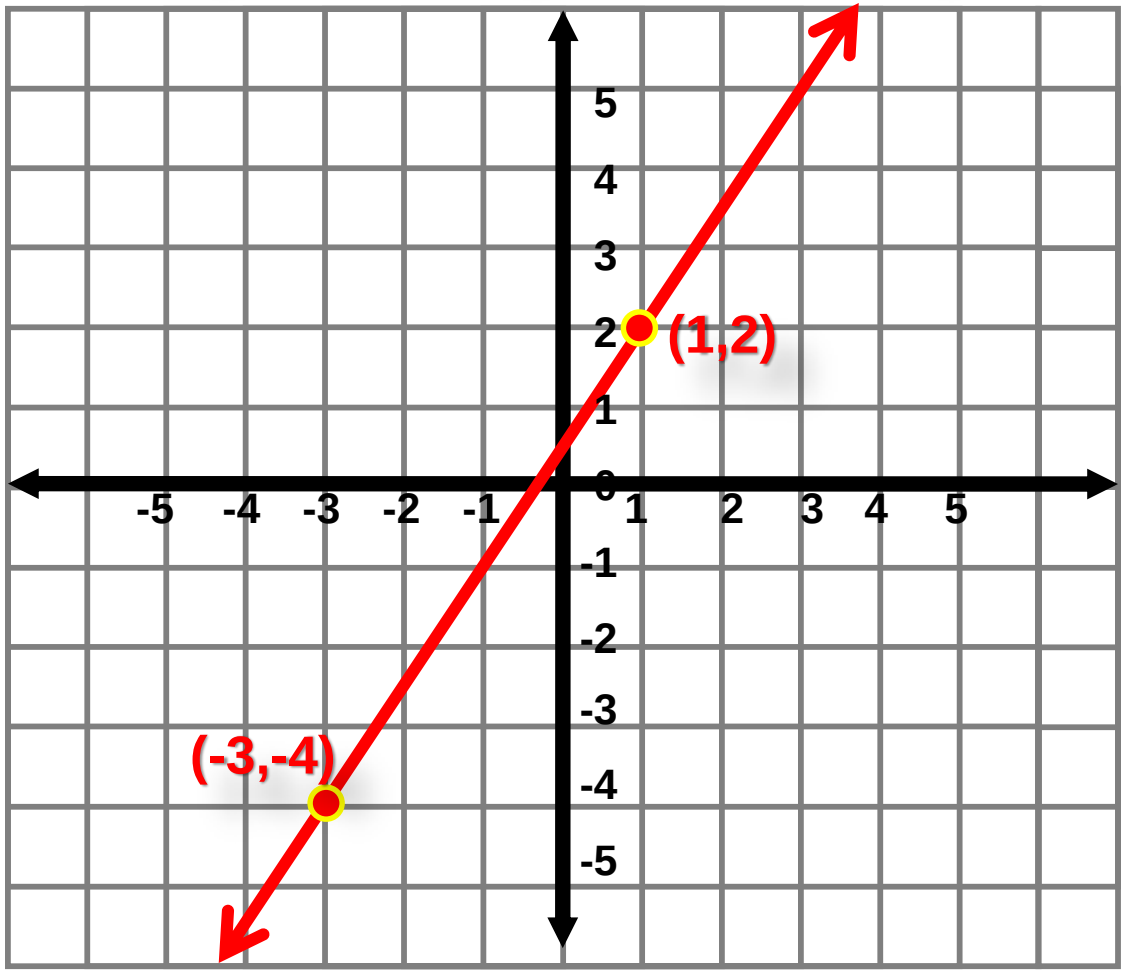
$\frac{1}{2}$

SLOPE REVISITED



SLOPE FORMULA

(-3, -4) and (1,2)



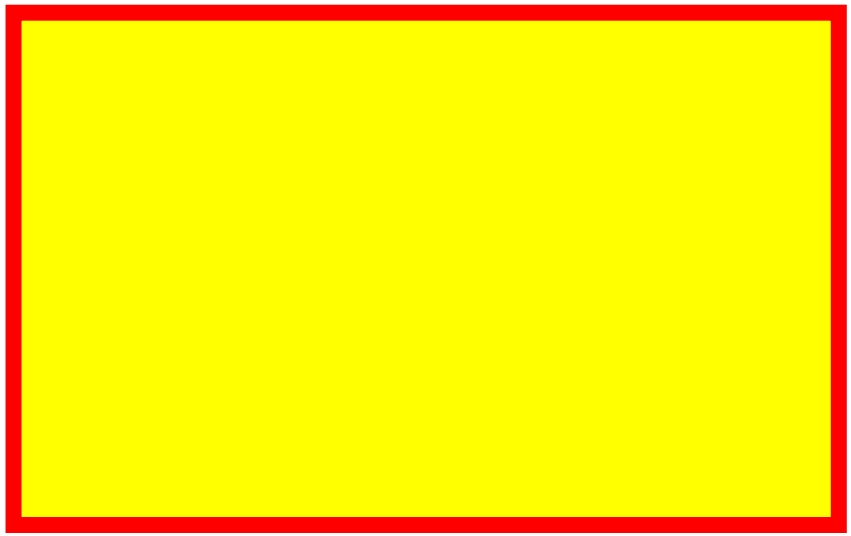
$$slope = \frac{rise}{run}$$

SLOPE FORMULA

(-3, -4) and (1,2)

(x_1, y_1) (x_2, y_2)

If you do not have the graph of a line use…



SLOPE FORMULA

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

Find the slope between the two points:

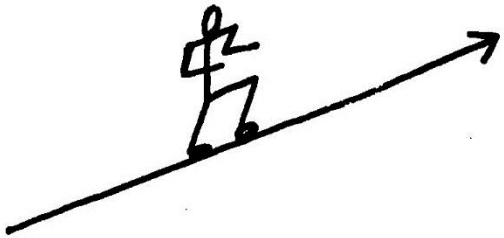
1) $(7, -6)$ *and* $(-5, 2)$

2) $(-2, 3)$ *and* $(4, 8)$

3) $(6, 3)$ *and* $(2, 0)$

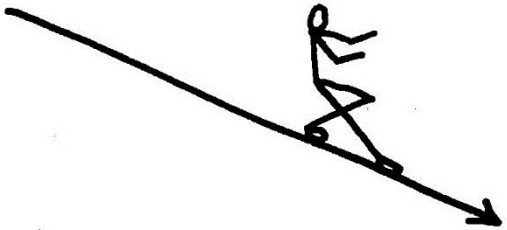
SLOPE OF A LINE

going up



positive slope

going down



negative slope

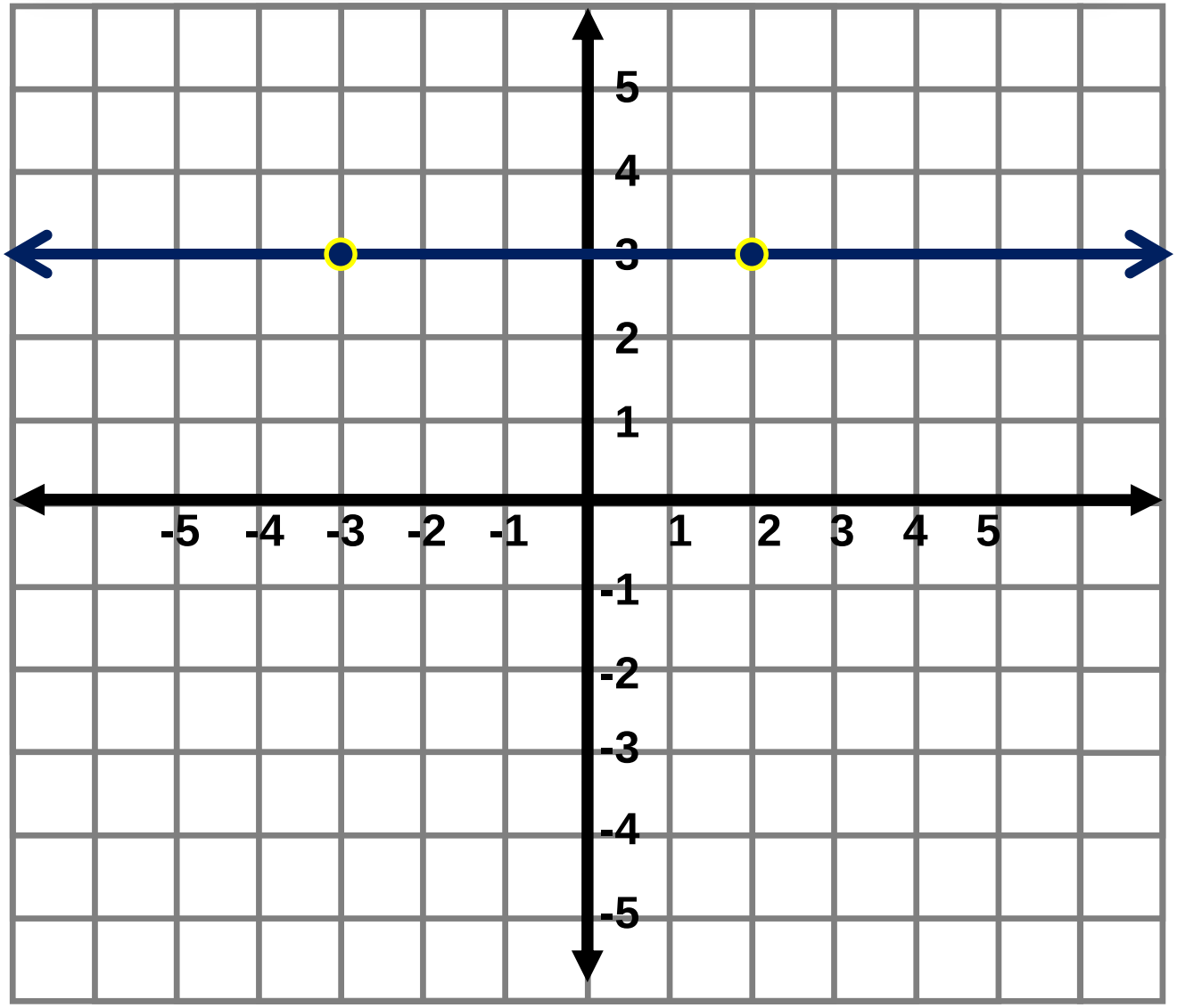
level

0 slope

Zero Slope vs Undefined (No Slope)

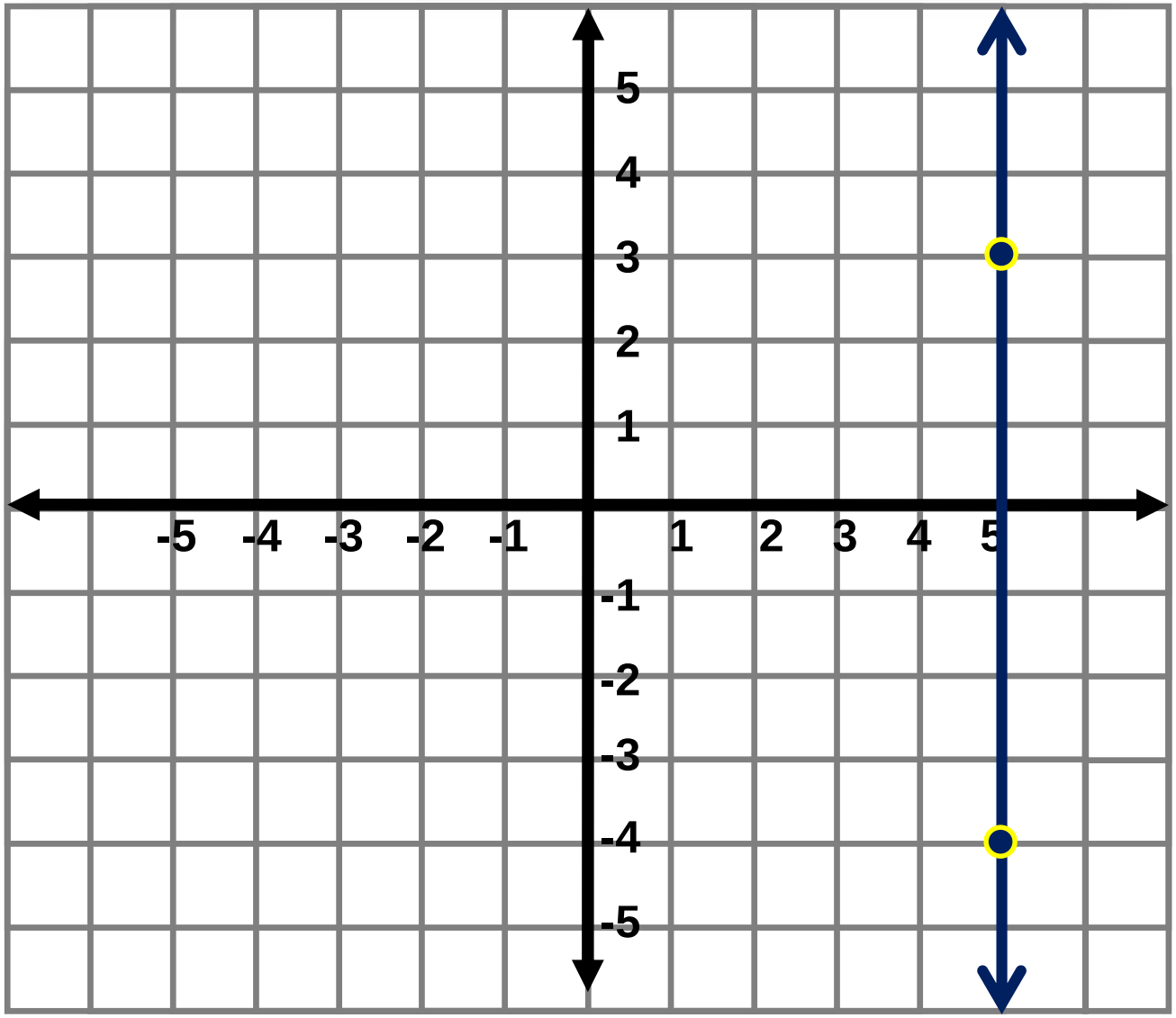
$$\frac{0}{5} \qquad \frac{5}{0}$$

SLOPE OF A LINE



$$slope = \frac{rise}{run}$$

SLOPE OF A LINE



$$slope = \frac{rise}{run}$$

SLOPE FORMULA

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

Find the slope between the two points:

1) $(0, 7)$ *and* $(-4, -1)$

2) $(-2, 5)$ *and* $(9, 5)$

SLOPE FORMULA

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

Find the slope between the two points:

3) $(11, -8)$ ***and*** $(3, 4)$

4) $(-3, 9)$ ***and*** $(-3, 5)$