

$$m = \frac{-6}{7}$$

$$+\frac{7}{6}$$

State the slope that is...
Perpendicular

Parallel

$$-\frac{6}{7}$$

PARALLEL

NEITHER

PERPENDICULAR

$$m_{AB} = \frac{11}{5}$$

$$m_{GF} = \frac{11}{5}$$

PARALLEL

NEITHER

PERPENDICULAR

$$m_{AB} = \frac{-8}{3}$$

$$m_{GF} = \frac{-3}{8}$$

PARALLEL

NEITHER

PERPENDICULAR

$$m_{AB} = +\frac{16}{45}$$

$$m_{GF} = \frac{-32}{90} \div 2$$

$-\frac{16}{45}$



LET'S PULL IT
TOGETHER...

Finding slope...

Graph

Two Co-ordinates

Equation

1

$$y = mx + b$$



WHAT IS THE SLOPE?

Slope → $y = 5x + 7$ ← *constant fixed*

WHAT IS THE Y-INTERCEPT?

y-i →

Find the **y-intercept** and the **slope** for each of the following.

$$y = mx + b$$

a) $5y - 10 = 15x - 30$

b) $4(x + 3) + 2y = 11$

c) $2(y - 7) + 2 = 3(x - 4) + y$

$$\cancel{10} 5y - \cancel{10} = 15x - 30^{+10}$$

$$5y = 15x - 30 + 10$$

y = mx + b

$$\frac{(5y)}{5} = \frac{15x}{5} - \frac{20}{5}$$

$$y = 3x - 4$$

2

y-int.: $\frac{-4}{\quad}$

slope: $\frac{3}{\quad}$

$y = mx + b$

$$\begin{aligned} \text{a) } 5y - 10 &= 15x - 30 \\ 5y &= 15x - 30 + 10 \\ 5y &= 15x - 20 \\ y &= 3x - 4 \end{aligned}$$

$$4(x + 3) + 2y = 11 \quad y = mx + b$$

$$\begin{array}{r} \cancel{-4x} \\ + \cancel{4x} + \cancel{12} \end{array} + 2y = 11 - 4x - 12$$

$$2y = -4x + 11 - 12$$

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

$$y = -2x - \frac{1}{2}$$

$$m = -2$$

$$y\text{-int} = -\frac{1}{2}$$

3

y-int.: $\underline{-1/2}$

slope: $\underline{-2}$

b) $4(x+3)+2y=11$

$4x+12+2y=11$

$2y=11-4x-12$

$2y=-4x-1$

$y=-2x-\frac{1}{2}$

$$2(y - 7) + 2 = 3(x - 4) + y$$

$$2y - 14 + 2 = 3x - 12 + y$$

$$2y - y - 14 + 2 = 3x - 12$$

$$y = 3x - 12 + 14 - 2$$

$$y = 3x + 2 - 2$$

$$y = 3x$$

4

y-int.: $\frac{0}{\quad}$

slope: $\frac{3}{\quad}$

c) $2(y-7)+2=3(x-4)+y$ $y=mx+b$

$$2y-14+2=3x-12+y$$

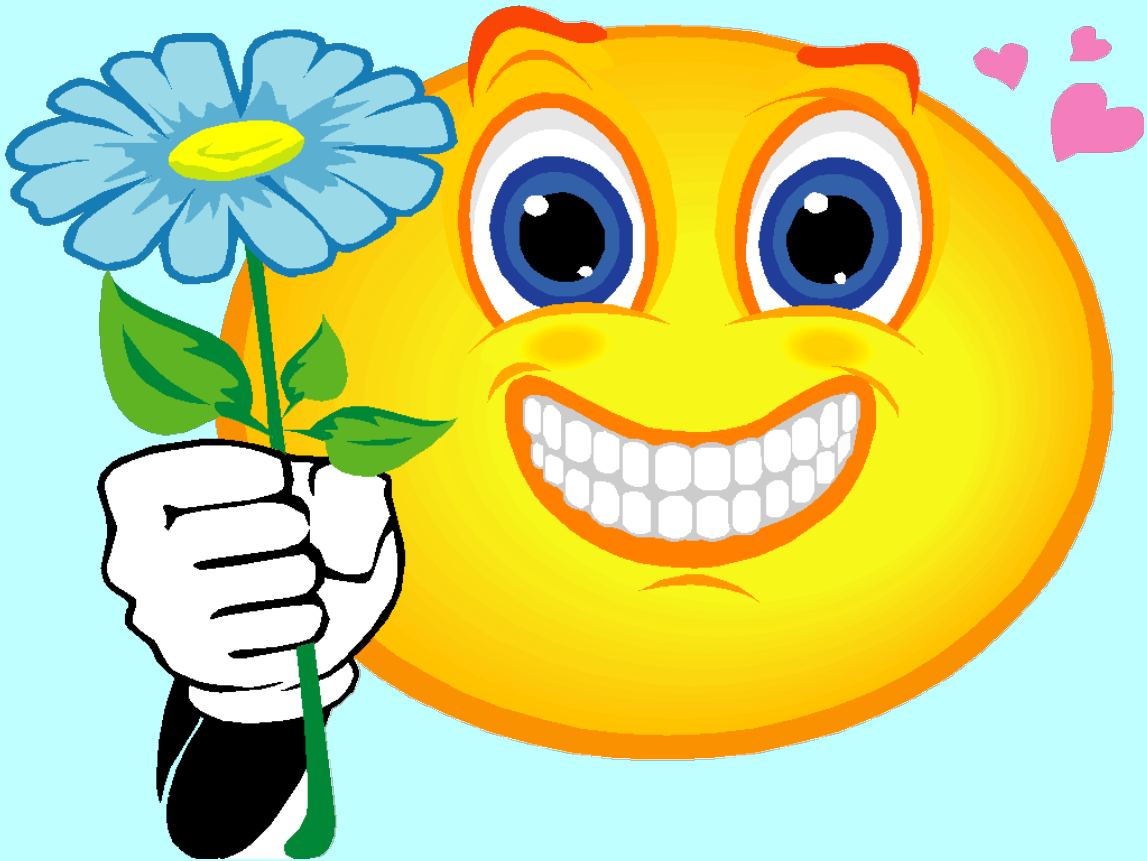
$$2y-y=3x-12+14-2$$

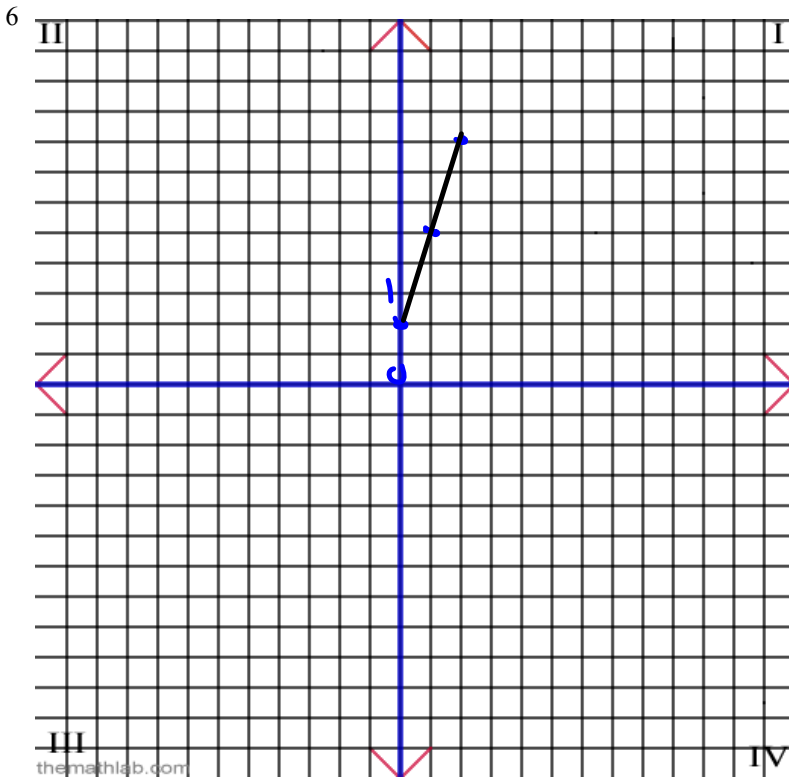
$$y=3x+0$$

$$y=3x$$

Click on the flower.

Check this out!!!





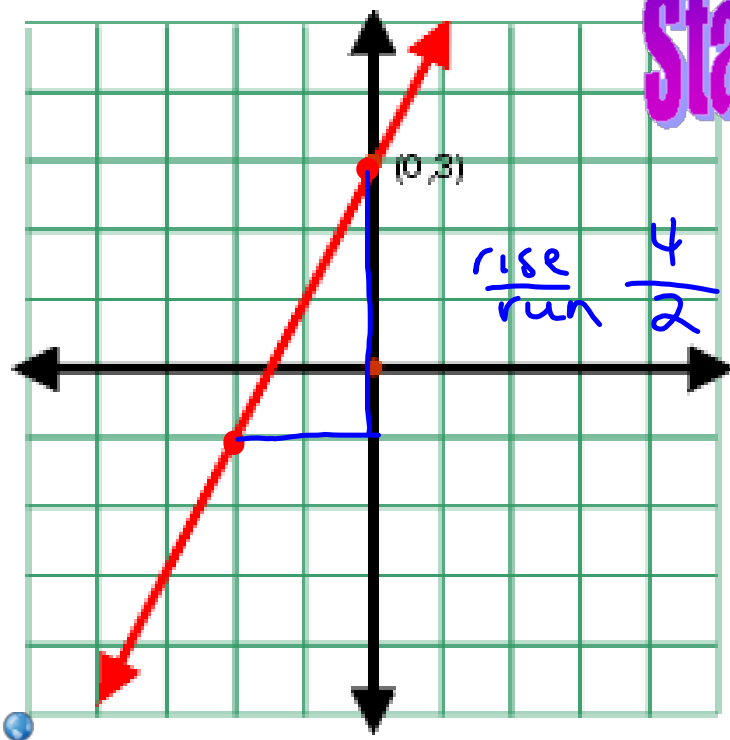
$y = mx + b$

$y = 3x + 2$

y-int.: 2

slope: 3 rise
 1 run

8



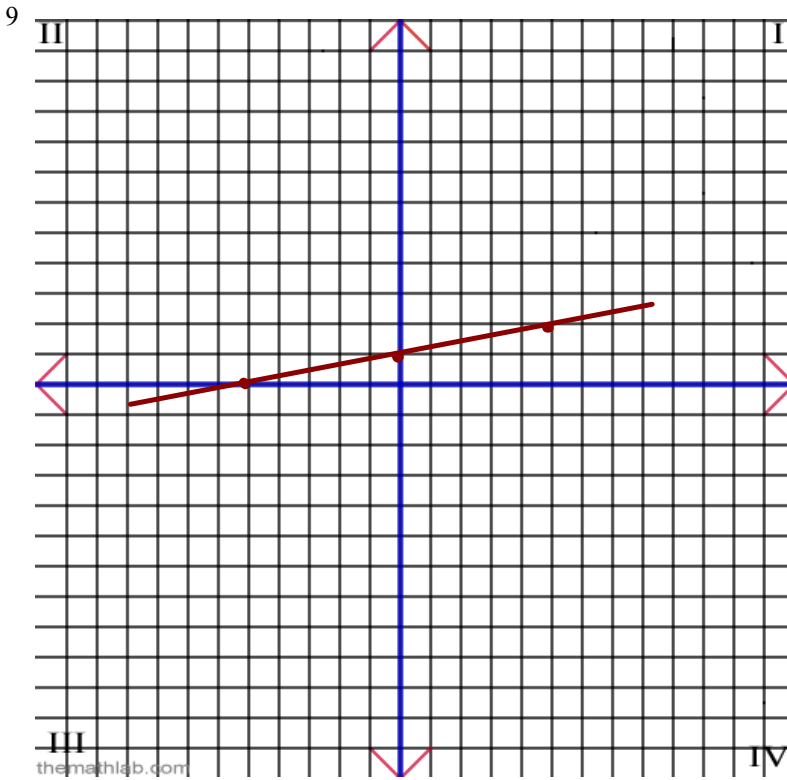
State the equation!

y-int.: $\frac{+3}{}$

slope: $\frac{4}{2} = 2$

equation: $y = 2x + 3$

$y = mx + b$



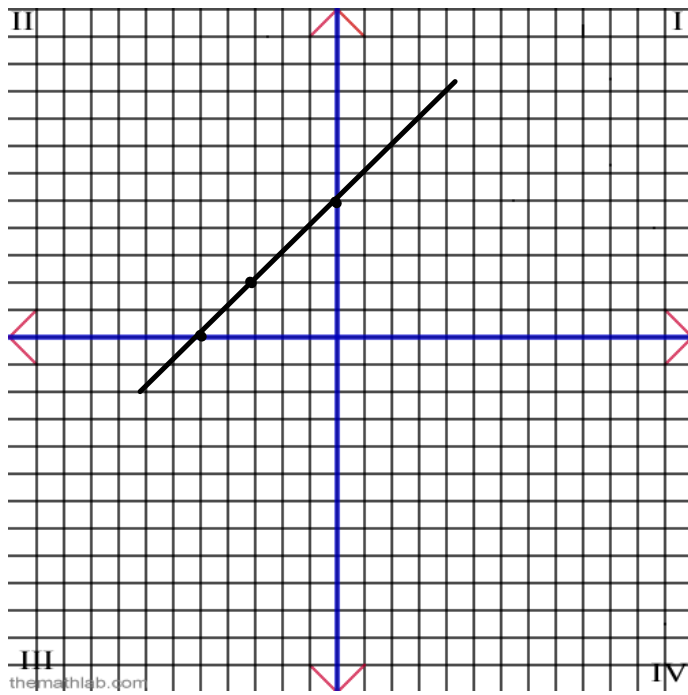
y-int.: _____

slope: _____

equation: _____

$$y = mx + b$$

10

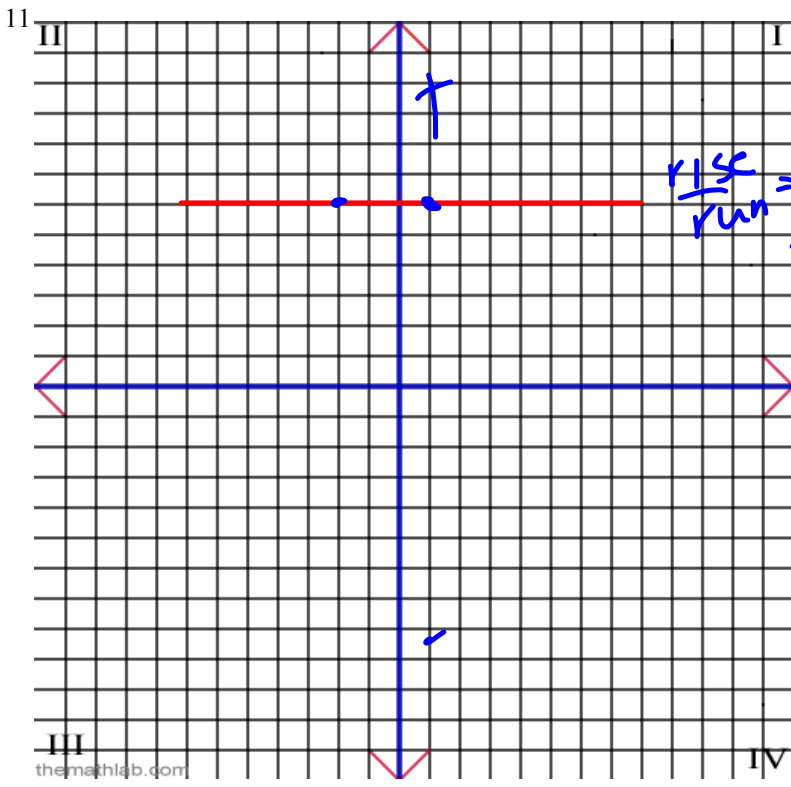


y-int.: _____

slope: _____

equation: _____

y = mx + b

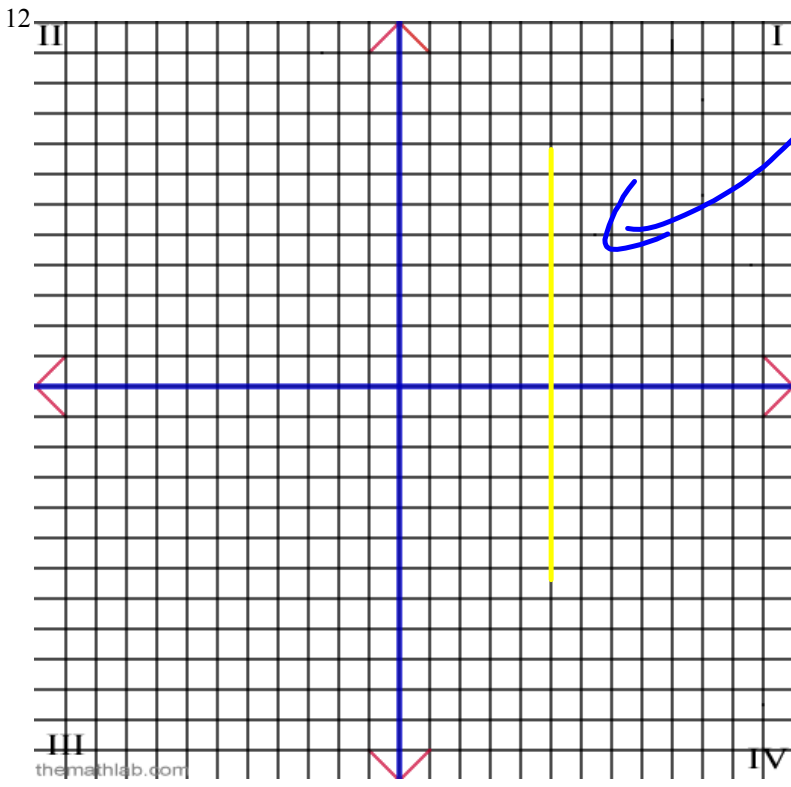


y-int.: + b

slope: 0

equation: y = b

y = mx + b



undefined.

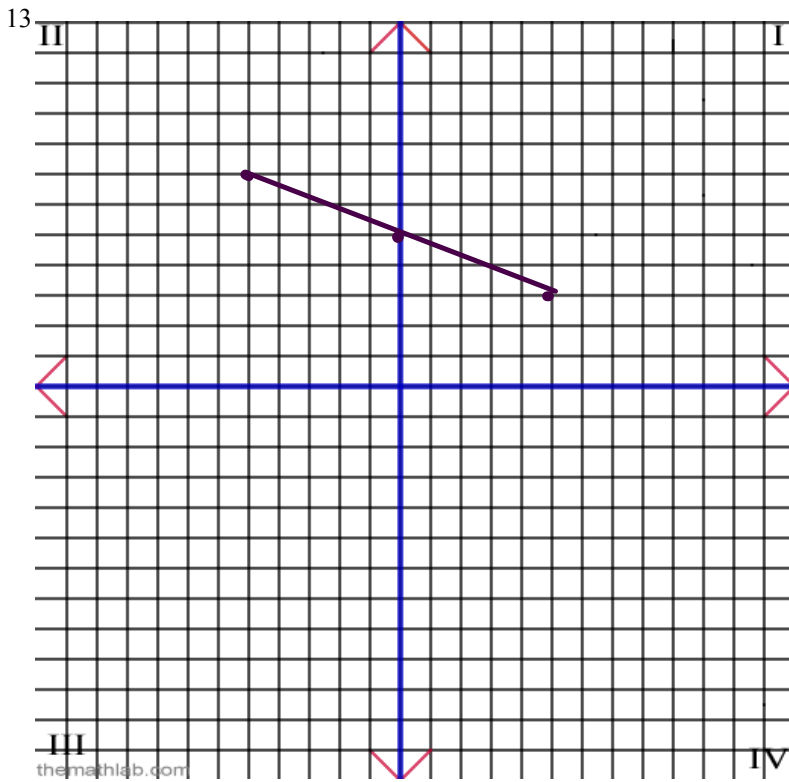
y-int.: none.

slope: undefined

equation: undefined

$x = 5$
 $y = mx + b$

Homework
land



y-int.: _____

slope: _____

equation: _____

$$y = mx + b$$

