

a) Find an equation for the number of flowers (F) related to the number of weeks (w).

Using the graph, we need to find:

Slope = 10 y-intercept = 5

Write the equation:

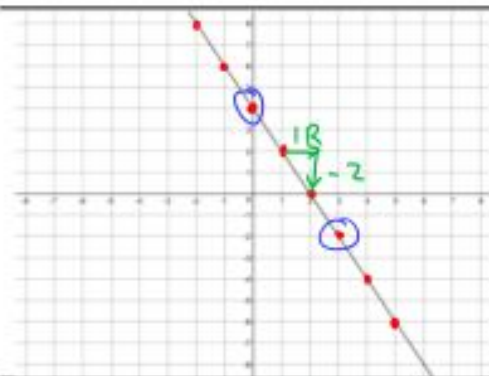
$$F = 10w + 5$$

b) Check your equation (choose a point on the graph) (3, 35)

$$F = 10 \cdot 3 + 5 = 30 + 5 = 35 \checkmark$$

c) Predict the number of flowers after 12-weeks

$$F = 10 \cdot 12 + 5 = 120 + 5 = 125$$



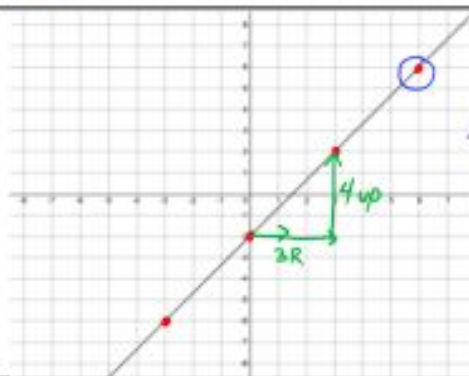
Slope:
1 Right
⇒ up & down?

Write the equation: slope = -2 y-int = 4

$$y = -2x + 4$$

Check your equation: (3, -2)

$$y = -2(3) + 4 = -6 + 4 = -2 \checkmark$$



3R ⇒ 4 up
÷3 IR ⇒ 4/3 up

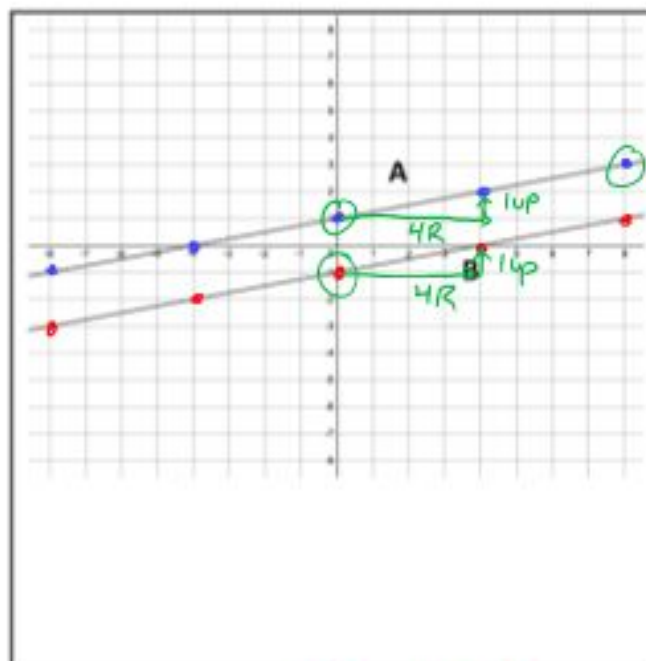
Fraction:
up & down = change y
right = change x

Write the equation: slope = 4/3 y-int = -2

$$y = \frac{4}{3}x - 2$$

Check your equation: (6, 6)

$$y = \frac{4}{3} \cdot 6 - 2 = \frac{24}{3} - 2 = 8 - 2 = 6 \checkmark$$



A: Write the equation $\text{slope} = \frac{1\text{up}}{4\text{R}} = \frac{1}{4}$ $y\text{-int} = 1$

$$y = \frac{1}{4}x + 1$$

A: Check the equation (8, 3)

$$y = \frac{1}{4} \cdot 8 + 1 = \frac{8}{4} + 1 = 2 + 1 = 3 \checkmark$$

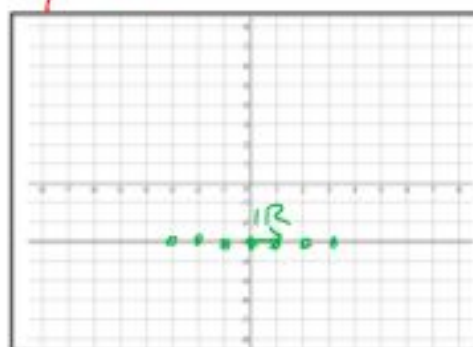
B: Write the equation $\text{slope} = \frac{1\text{up}}{4\text{R}} = \frac{1}{4}$ $y\text{-int} = -1$

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

B: Check the equation (-4, -2)

$$y = \frac{1}{4}(-4) - 1 = \frac{-4}{4} - 1 = -1 - 1 = -2 \checkmark$$

We call these 2 lines Parallel, which means they have the same slope but different y-int.



Slope = 0 $\frac{0\text{up}}{1\text{R}}$ $y\text{-intercept} = -3$

Write the equation:

$$y = 0x - 3$$

y is always -3

Flat lines are called horizontal lines. They have the same y value everywhere!

All horizontal lines have a slope of 0.



Slope = ∅ none $y\text{-intercept} = \text{∅ none}$

Write the equation:

$$x = 2$$

x is always 2

Straight up and down lines are called Vertical lines. They have the same x value everywhere!

All vertical lines do not have a slope or a y-int.