Bathroom breaks are to be taken before class!!

Do NOT move the desk!!

Turn your phone OFF!!

Put your phone up!!

Sit down!! Be quiet!!

Prepare to work!!

Keep your hands to yourself!!

Review for Test

1) The output is $\frac{1}{3}$ of the input x

$y = \frac{1}{3}(x)$

$y = \frac{1}{3}x$

$f(x) = \frac{1}{3}x$

y is 3 less than x

$y = x - 3$

2) $y = 3x + 2$, $x = 0.5$

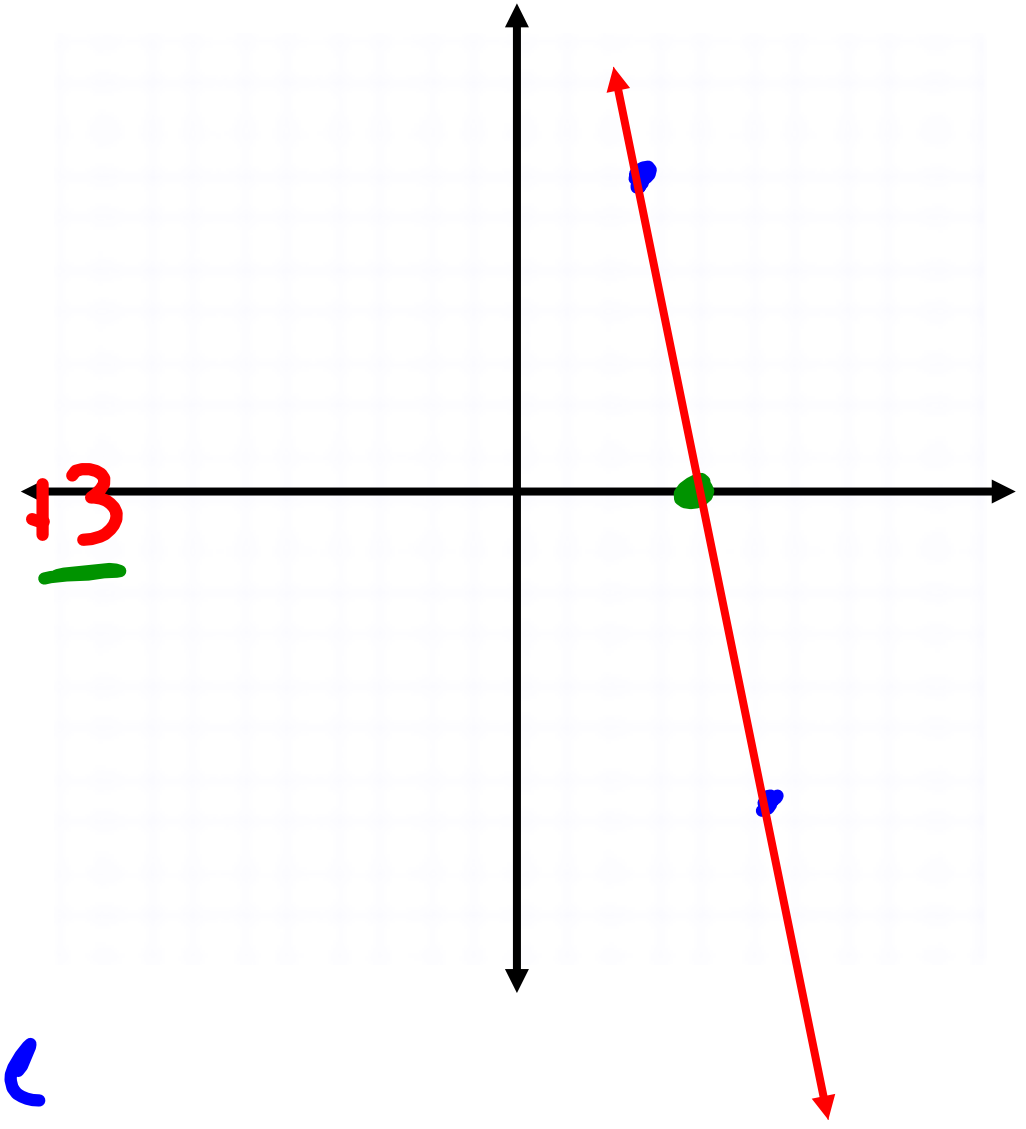
$f(0.5)$ $y = 3(0.5) + 2$

$= 1.5 + 2$

$= 3.5$

$(0.5, 3.5)$

3)



$y = -5x + 3$

↘

fall

Negative

decreasing

4) $y = \frac{x}{4} - 7$, $y = 2$

$2 = \frac{x}{4} - 7$

$+7 \qquad +7$

$9 = \frac{x}{4}$

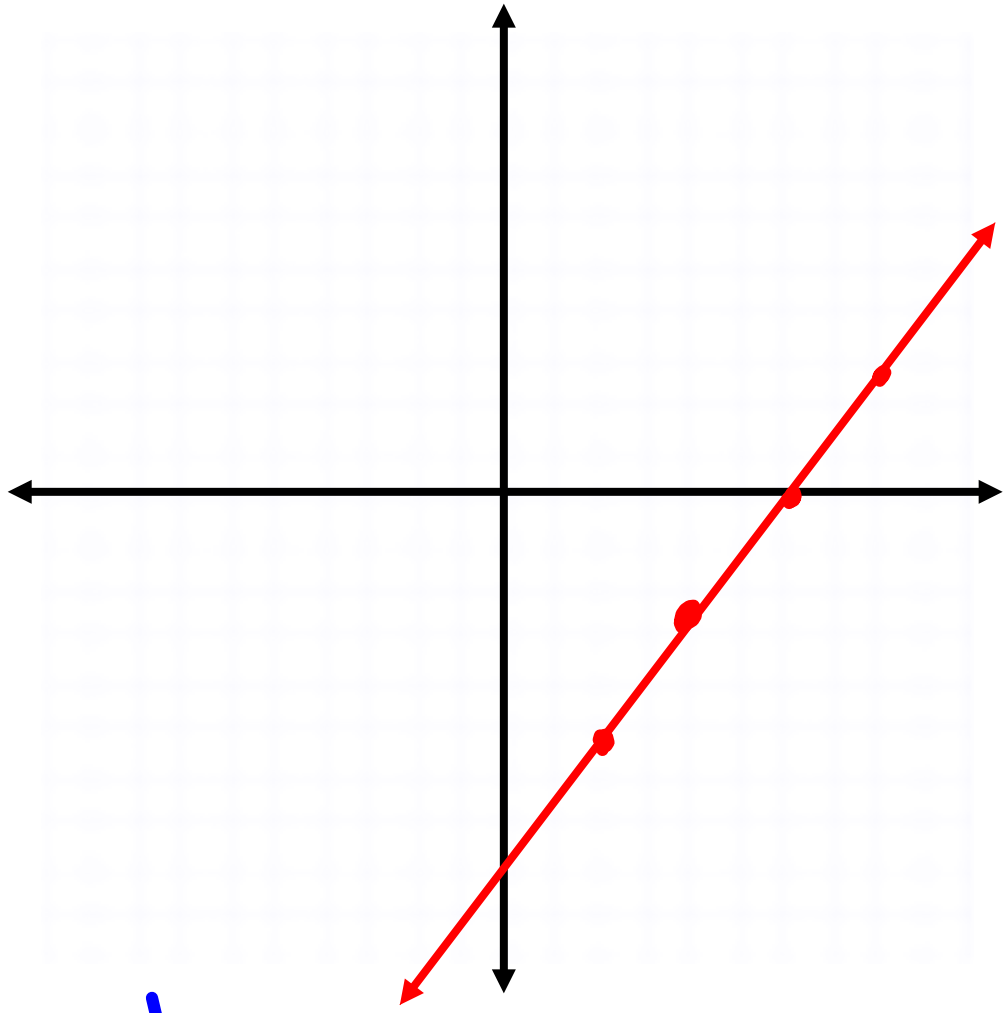
$\frac{1}{4} \quad \frac{1}{4}$

$36 = x$

$\frac{9}{1} = \frac{x}{4}$

$36 = x$

5)



Increasing

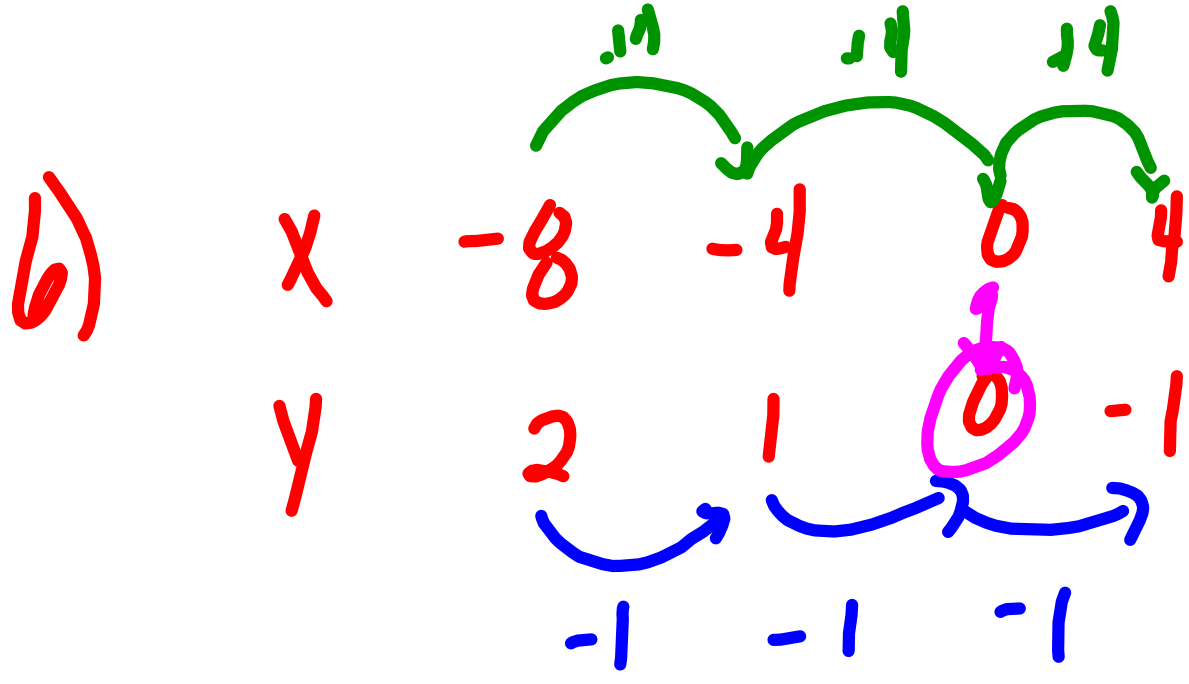
$y = mx + b$

$b = 2$

$m = \frac{4}{3}$

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

b)



$b = 0$ $m = -\frac{1}{4}$

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

7) $y_1 = \underline{3}x - 1$ $y_2 = \underline{3}x + 4$

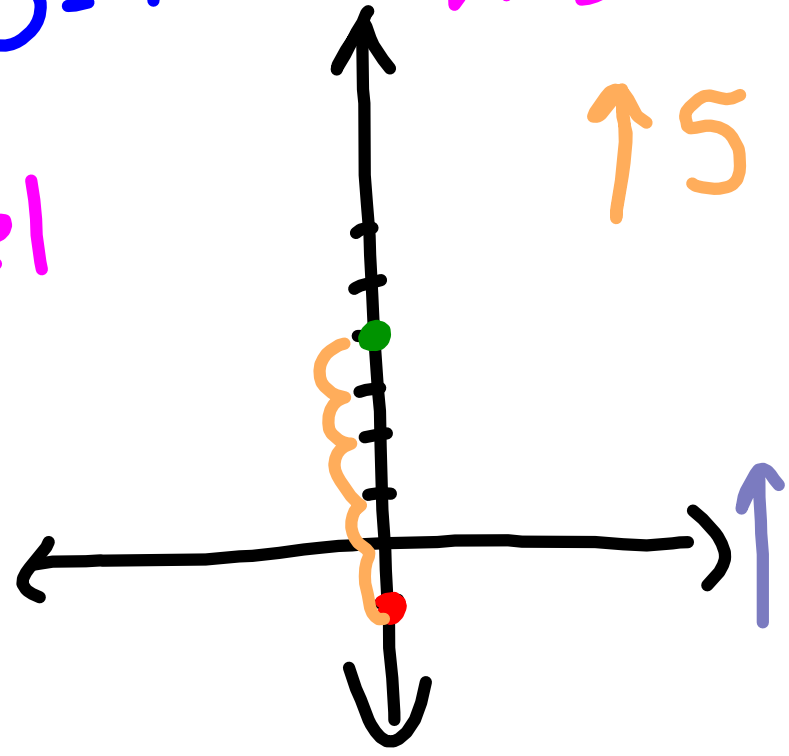
m: 3 b: -1 m: 3 b: 4

Parallel

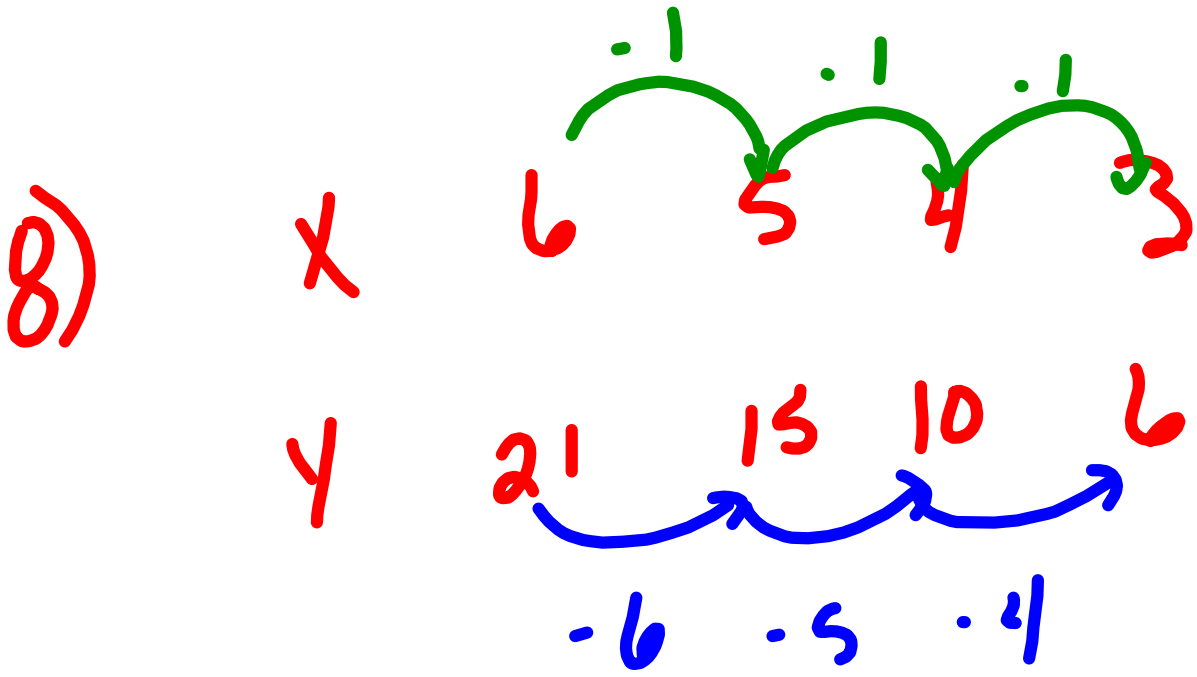
↑5

-1-4

+5



8)



NONLINEAR

Not constant change

9) $y = \frac{8}{x^2}$ ←

Nonlinear function

11) yes

12) yes

13) $y = x - 2$

14) $x + \frac{1}{3} = -\frac{5}{3}$

$-\frac{1}{3} \quad -\frac{1}{3}$

$x = -2$

15) $m = \dfrac{y_2 - y_1}{x_2 - x_1}$

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

x_1 y_1 x_2 y_2

$$m = \frac{-4 - 3}{-2 - (-1)} = \frac{-7}{-1} = 7$$