

Graphing Lines Review

Learning targets:

1. Graph a linear function using slope and y -intercept.
2. Graph a linear function using both the x -intercept and y -intercept.
- * 3. Graphing horizontal and vertical lines.

A linear function in slope-intercept form: $y = mx + b$

$m = \text{slope}$, $b = y\text{-intercept}$

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

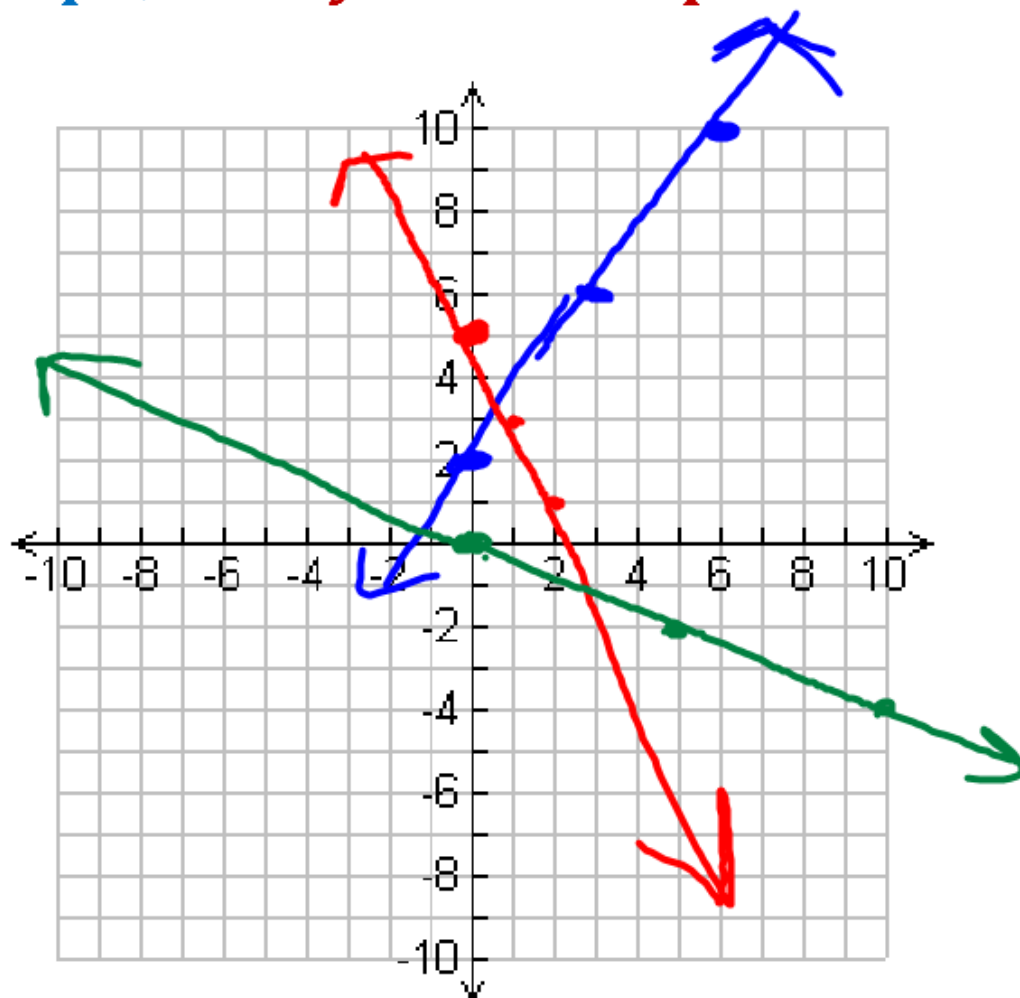
$m = \frac{4}{3}$ $b = 2$

Ex. $y = -2x + 5$

$m = -\frac{2}{1}$ $b = 5$

Ex. $y = -\frac{2}{5}x$

$m = -\frac{2}{5}$ $b = 0$



A linear function in standard form: $Ax + By = C$

Use the x -intercept and y -intercept

Ex. $3x - y = 6$

x int

let $y = 0$

$3x = 6$

$x = 2$

y int

let $x = 0$

$3(0) - y = 6$

$y = -6$

Ex. $x - 2y = -8$

x int

let $y = 0$

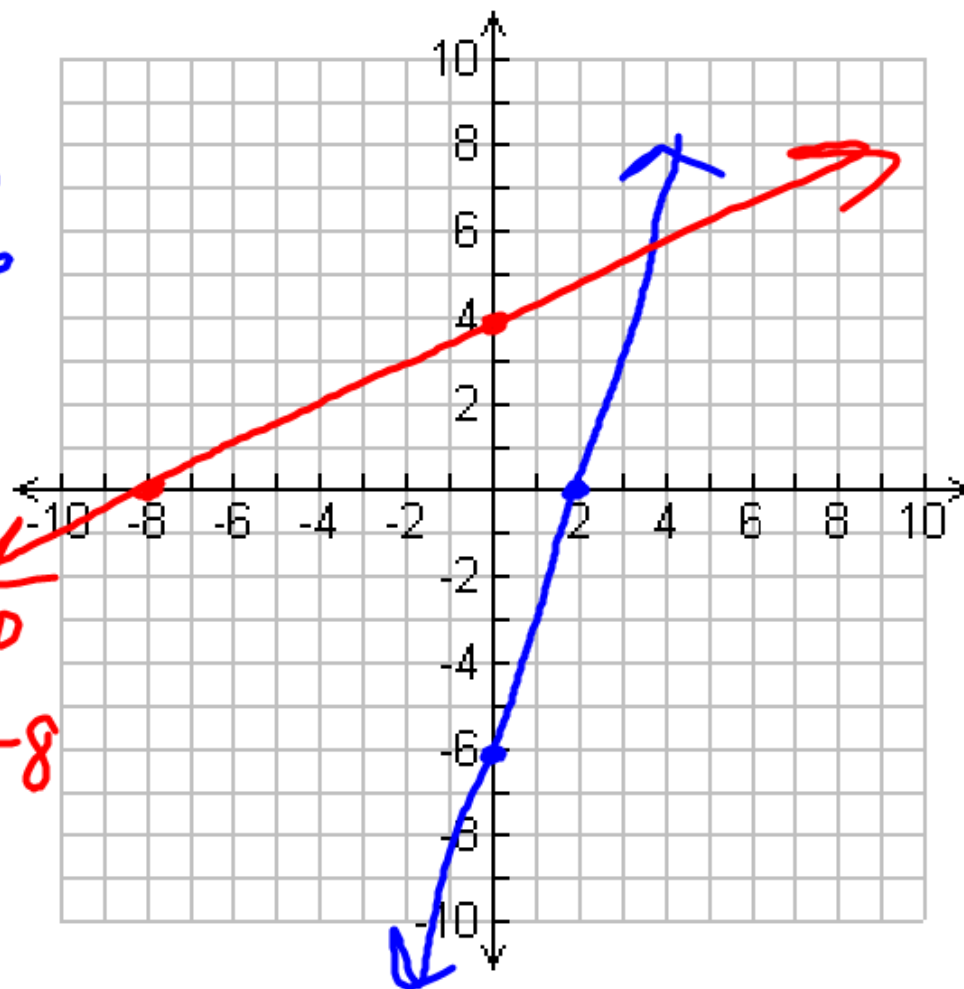
$x = -8$

y int

let $x = 0$

$0 - 2y = -8$

$y = 4$



HÖYVUX

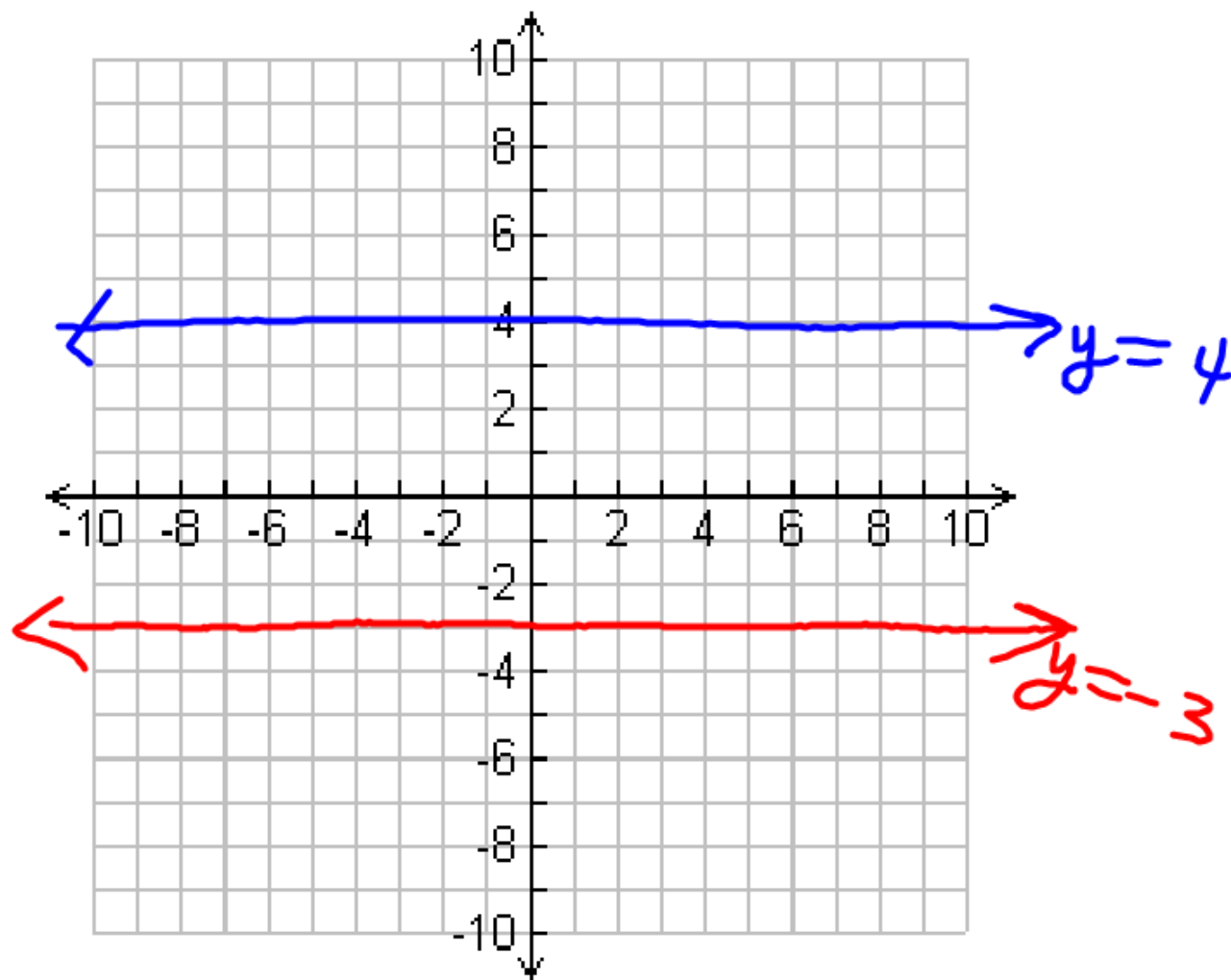
A horizontal linear function: $y = b$

Ex. $y = -3$

Ex. $2y - 8 = 0$

$2y = 8$

$y = 4$



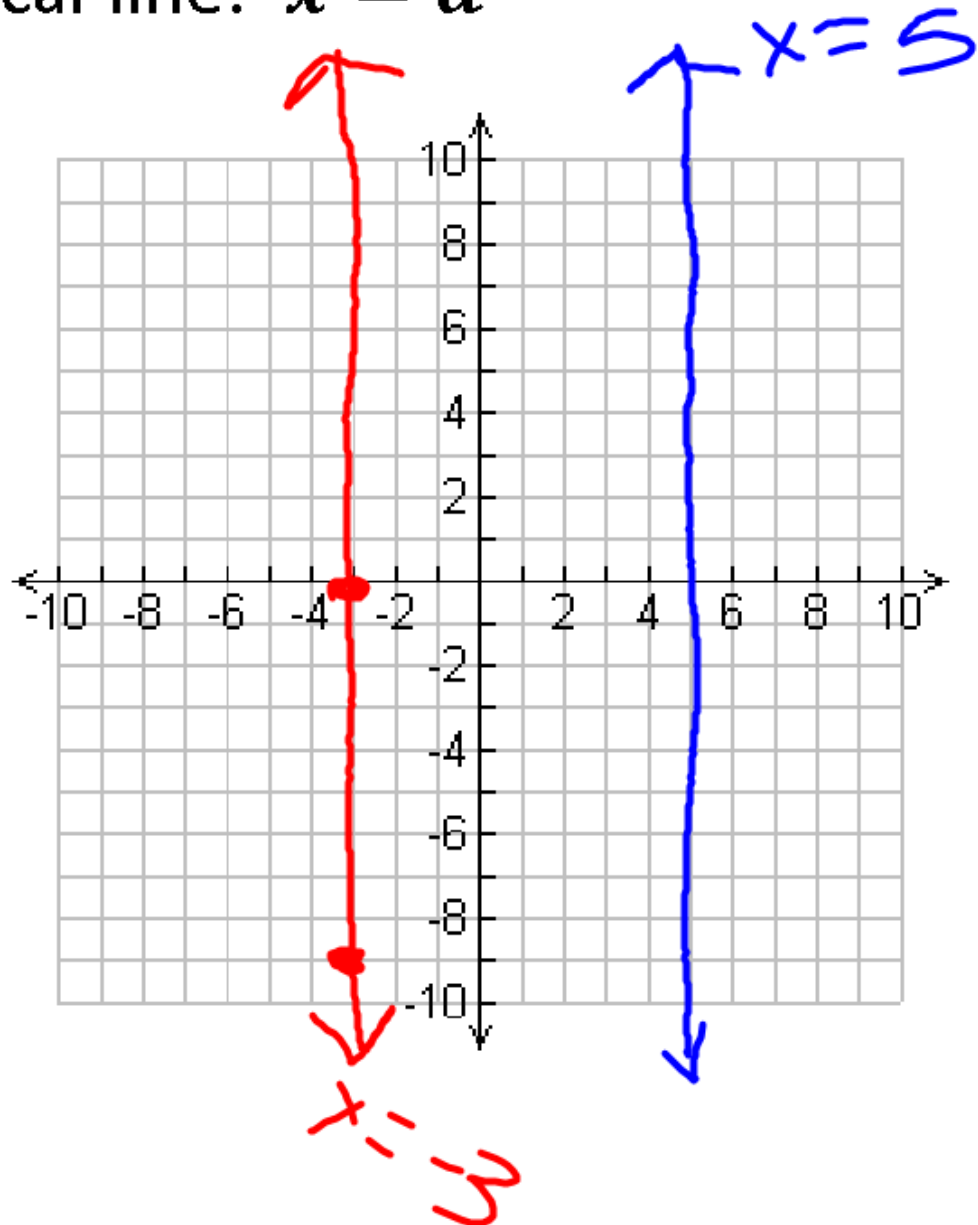
Vertical line: $x = a$

Ex. $x = 5$

Ex. $3x + 9 = 0$

$3x = -9$

$x = -3$



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horizontal line

$m=0$

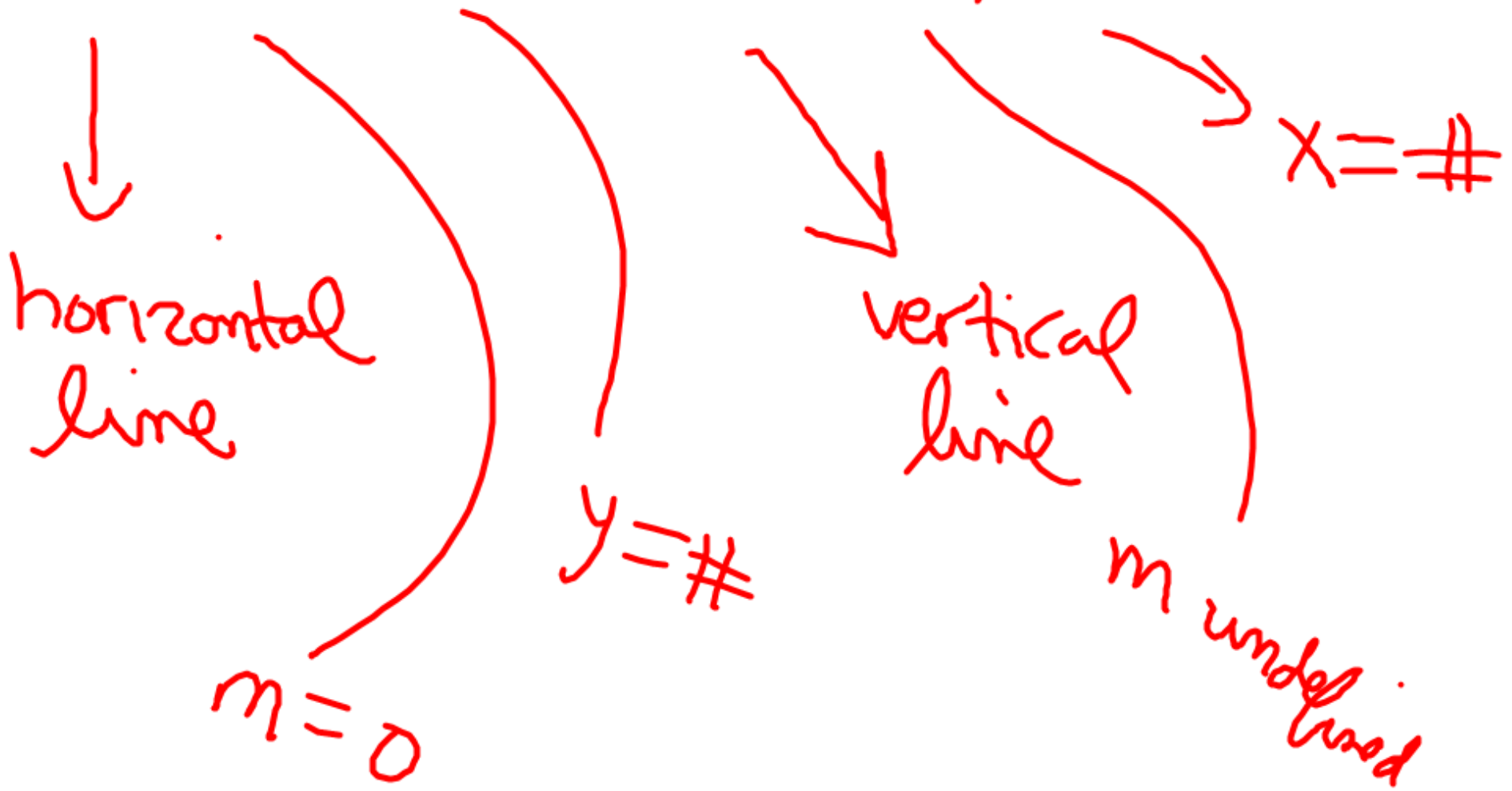


vertical line

m undefined

$x = \#$

$y = \#$



You Try:

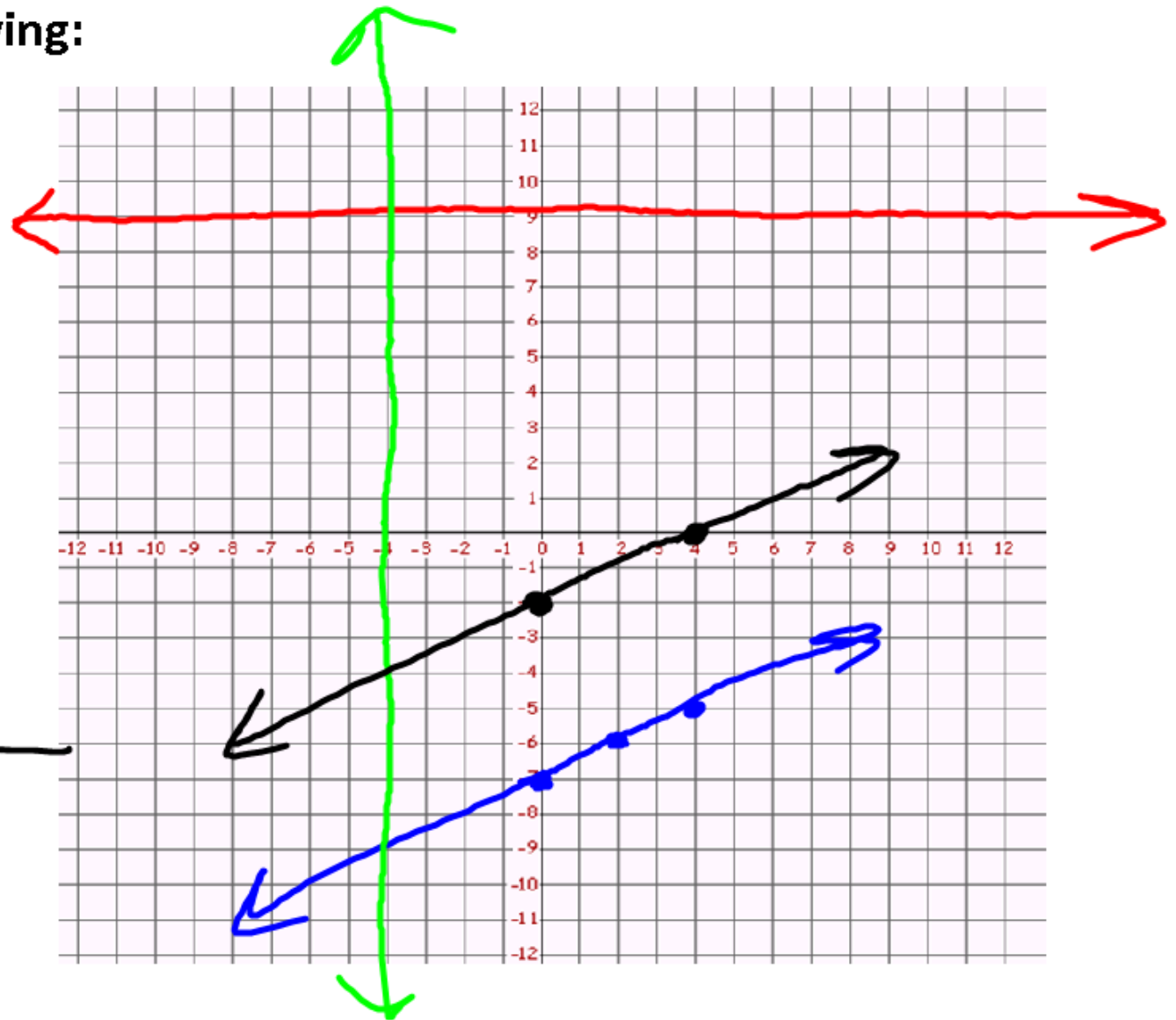
Graph the following:

a) $y = 9$

b) $y = \frac{1}{2}x - 7$

c) $x = -4$

d) $2x - 4y = 8$



Handouts:

Green Sheet #1 – 12 (*omit 4 & 8*)

Blue Sheet #1 – 12 (*omit 1, 2, 4 & 10*)