


1.1

Linear $y = x + 4$

Linear $y = 2$

Quadratic $y = x^2 + 1$  Parabola

Not Linear $y = \frac{4}{x}$

Not Linear $y = x^{-1}$ $y = \frac{1}{x}$

Divisibility

2 Even

3 Sum of digits divisible by 3

18 1+8

9

124 1+2+4

7

4 Number formed by last 2 digits
is divisible by 4

124 24

9,416 16

~~29,418~~ 18

5 Ends in 5 or 0

6 Even, sum of digits divisible
by 3~~429~~ 4+2+9

15

218

2+1+8

11

612

6+1+2

9

8 Number formed by last two
digits divisible by 8

624

9 Sum of digits divisible by 9

2,417 2+4+1+7

~~14~~

478 4+7+8

19

621 6+2+1

9

10 Ends in zero

Intercepts

x-intercept

$$y = 0$$

y-intercept

$$x = 0$$

$$y = mx + b$$

b y-intercept

$$x + 4y = 8$$

x-intercept

$$y = 0$$

$$x + 4(0) = 8$$

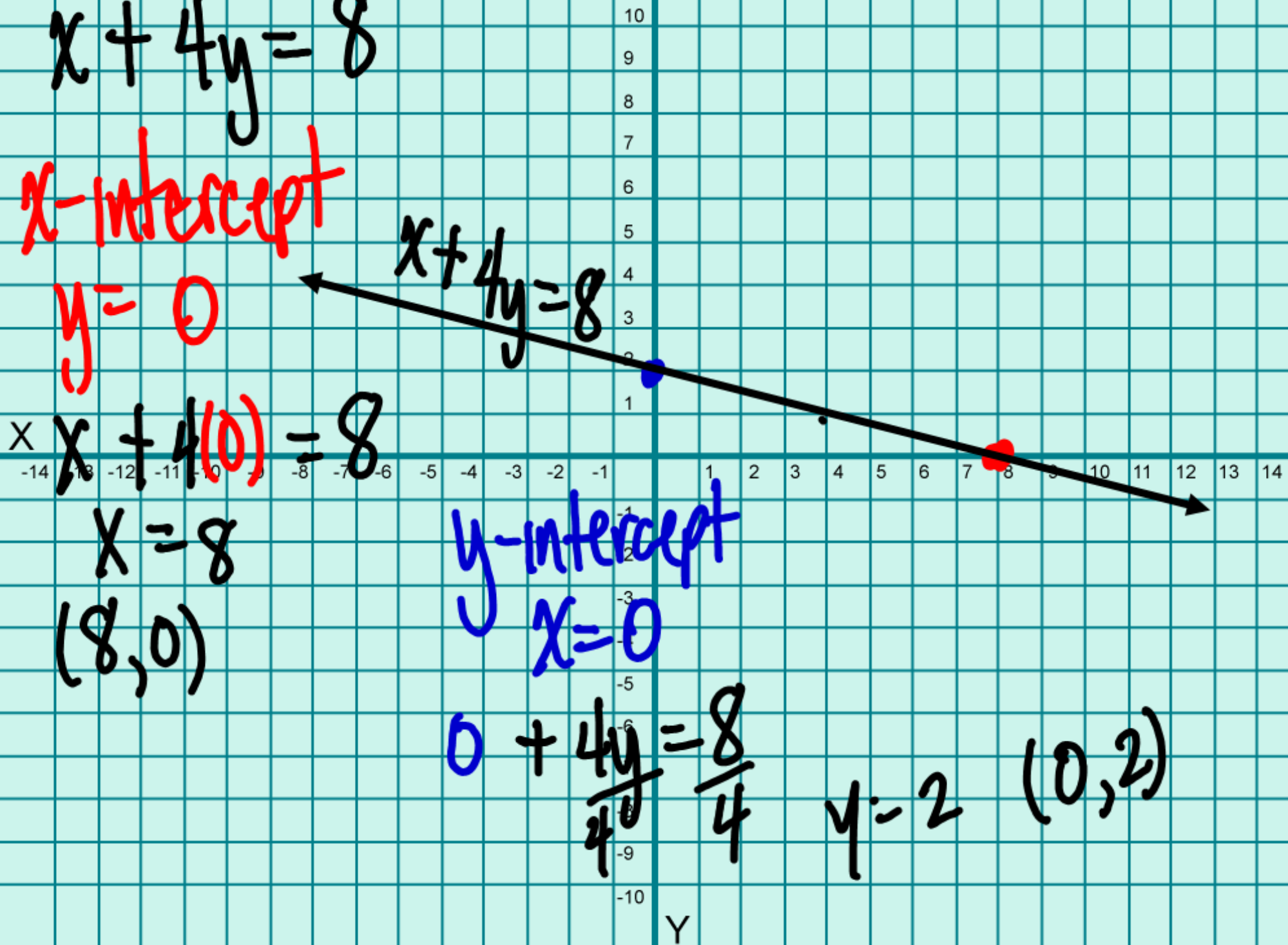
$$x = 8$$

$$(8, 0)$$

$$x + 4y = 8$$

y-intercept
 $x = 0$

$$0 + \frac{4y}{4} = \frac{8}{4} \quad y = 2 \quad (0, 2)$$



$$2x + by = -12$$

x-intercept

$$y = 0$$

$$2x + b(0) = -12$$

$$\frac{2x}{2} = \frac{-12}{2}$$

$$x = -6$$

$$(-6, 0)$$

y-intercept
 $x = 0$

$$2(0) + by = -12$$

$$\frac{by}{b} = \frac{-12}{b}$$

$$y = -2$$

$$(0, -2)$$

10
9
8
7
6
5
4
3
2
1
-1
-2
-3
-4
-5
-6
-7
-8
-9
-10

Y

-14 -13 -12 -11 -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 1 2 3 4 5 6 7 8 9 10 11 12 13 14

$$y = -3x + 2$$

$$\begin{matrix} x & y \\ (-2, 3) \end{matrix}$$

Parallel line

$$m = -3$$

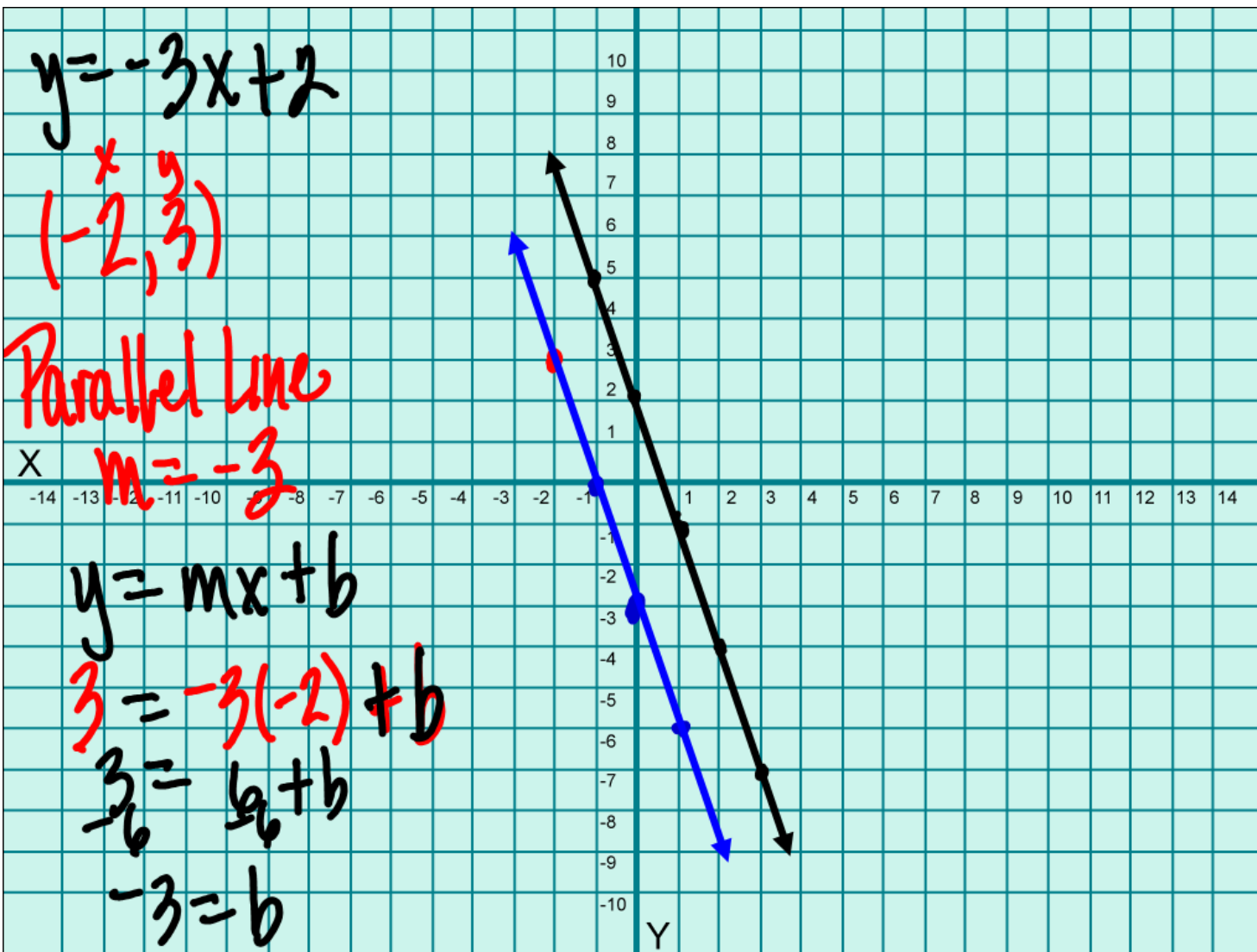
$$y = mx + b$$

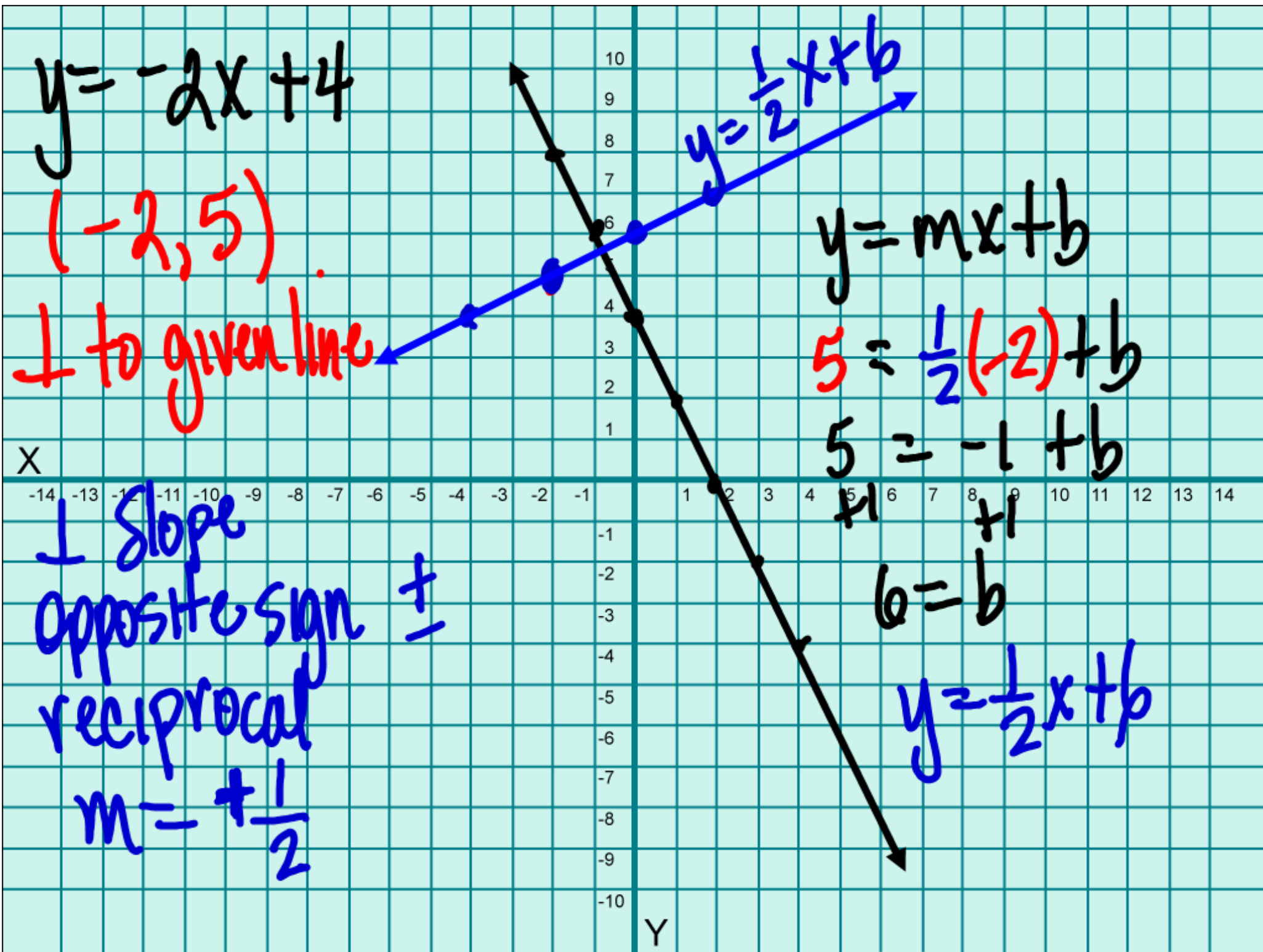
$$3 = -3(-2) + b$$

$$3 = 6 + b$$

$$-3 = b$$

$$y = -3x - 3$$





p 18 40 - 50 E

p 26 36 - 50 E