

42.

$$4a + 2s = 588$$

$$Ax + By = C$$

$$\text{Slope } -\frac{A}{B}$$

$$y\text{-int. } \frac{C}{B}$$

$$\text{Slope } -\frac{4}{2}$$

$$y\text{-int } \frac{588}{2}$$

$$m = -2$$

$$b = 294$$

$$2a + s = 294$$

$$Ax + By = C$$

$$\text{Slope } -\frac{A}{B}$$

$$y\text{-int } \frac{C}{B}$$

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

$$\frac{294}{1}$$

$$b = 294$$

$$y = 2x + 5$$

$$\frac{2y}{2} = \frac{4x}{2} + \frac{10}{2}$$

$$y = 2x + 5$$

$$\frac{3y}{3} = \frac{6x}{3} + \frac{15}{3}$$

$$y = 2x + 5$$

46.

$$y = 4x$$

$$y = mx + b$$

$$y = 4x$$

$$Ax + By = C$$

$$-4x + y = 0$$

$$y = 4x$$

$$-4x + y = 0$$

$$4x - y = 0$$

$$y = 4$$

$$y = 4$$

$$y = 0x + 4$$

$$y = 4$$

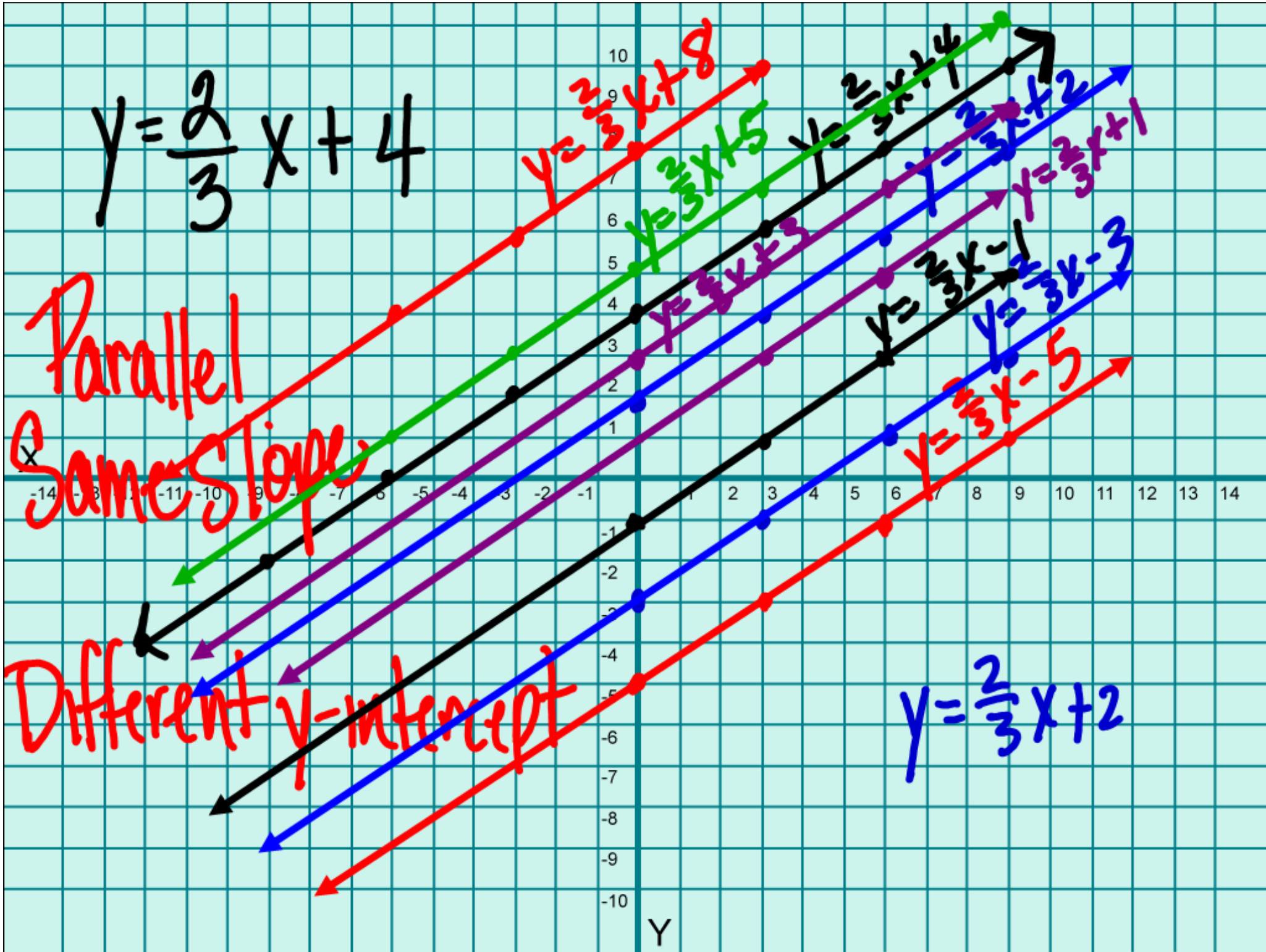
$$0x + 1y = 4$$

$$Ax + By = C$$

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

Parallel
Same Slope

Different y-intercept



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

$$y = -\frac{3}{2}x - 1$$

X

-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

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

Y

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

Slope for 1 lines

opposite sign reciprocal

$$\frac{2}{3} \cdot -\frac{3}{2} = -1$$

Product of Slopes

$$y = -\frac{3}{2}x - 1$$

Original

$$m = 4$$

$$m = -2$$

$$m = -\frac{1}{3}$$

$m = 0$
horizontal

\perp

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

$$m = \frac{1}{2}$$

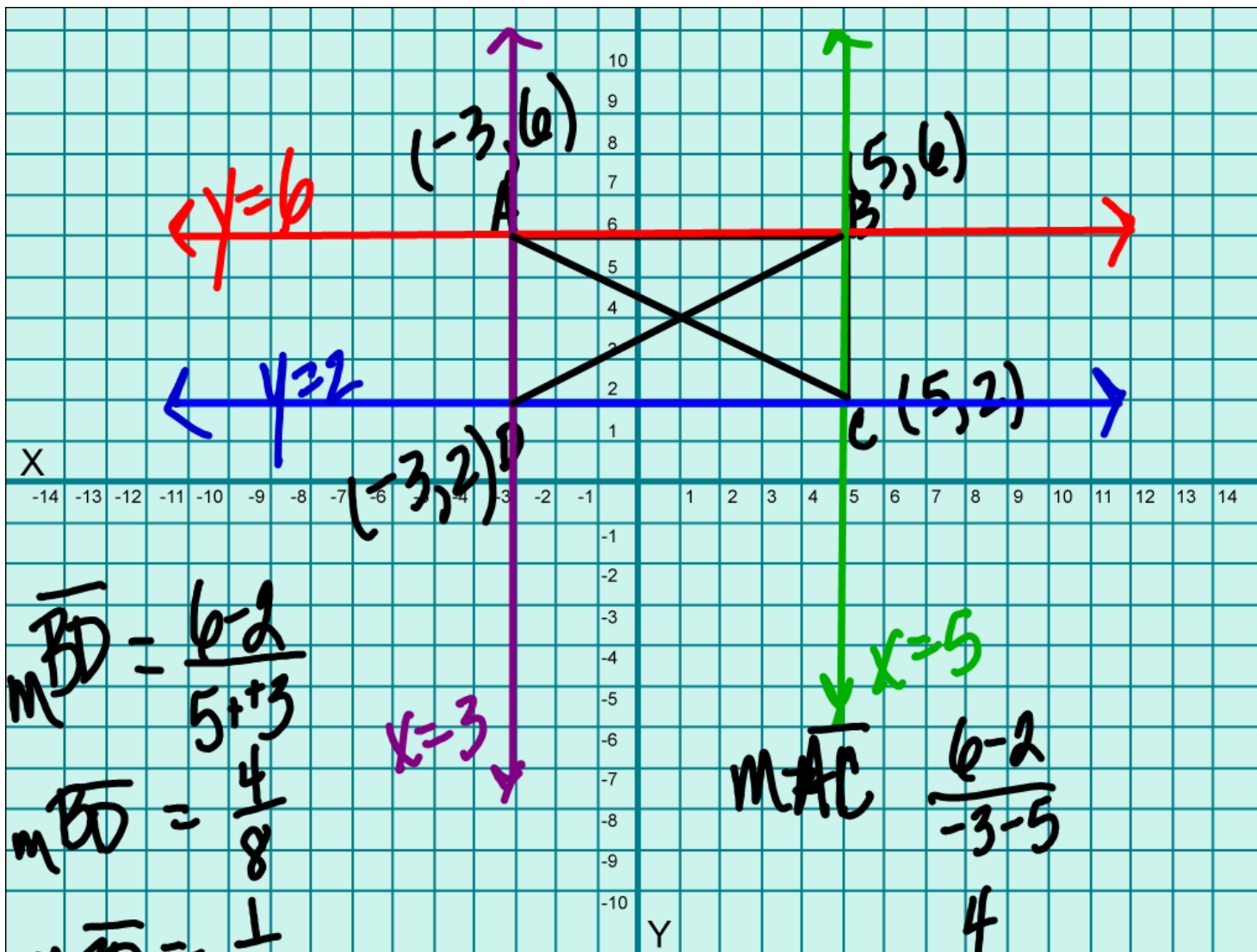
$$m = \frac{3}{1} = 3$$

$m =$ undefined
vertical

$$y = \frac{3}{5}x + 4$$

$$m = \frac{3}{5}$$

$$\perp m = -\frac{5}{3}$$



$$m_{\overline{BD}} = \frac{6-2}{5-(-3)}$$

$$m_{\overline{BD}} = \frac{4}{8}$$

$$m_{\overline{BD}} = \frac{1}{2}$$

$$m_{\overline{AC}} = \frac{6-2}{-3-5}$$

$$= \frac{4}{-8}$$

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

$$y - y_1 = m(x - x_1)$$

$$y - 1 = -4(x - 3)$$

$$y - 1 = -4(x + 3)$$