

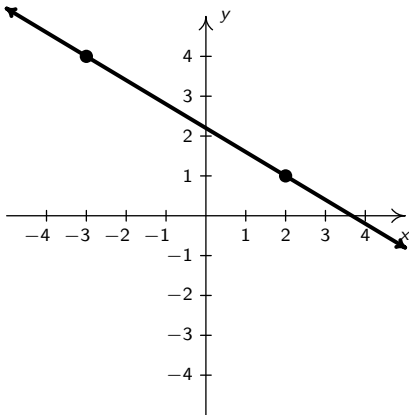
MATH 1650 REVIEW OF LINES

EXAMPLE: For each pair of points, find the slope between the points, graph the line containing the points, and find the slope-intercept equation of the line, where possible.

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

- Slope: $m = -\frac{3}{5}$

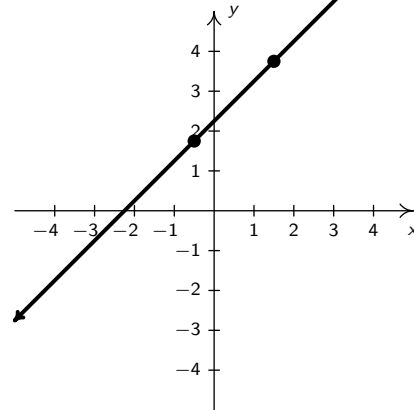
- Equation: $y = -\frac{3}{5}x + \frac{11}{5}$



- $\left(-\frac{1}{2}, \frac{7}{4}\right)$ and $\left(\frac{3}{2}, \frac{15}{4}\right)$.

- Slope: $m = 1$

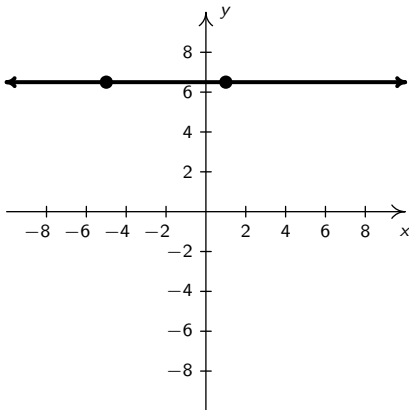
- Equation: $y = x + \frac{9}{4}$



- $(-5, 6.5)$ and $(1, 6.5)$.

- Slope: 0

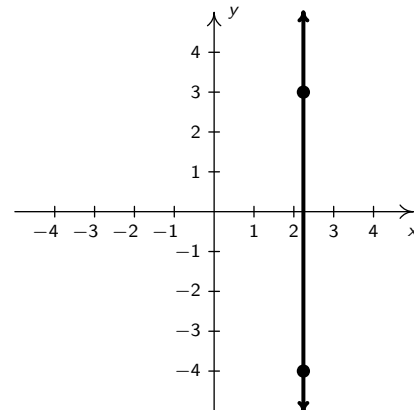
- Equation: $y = 6.5$



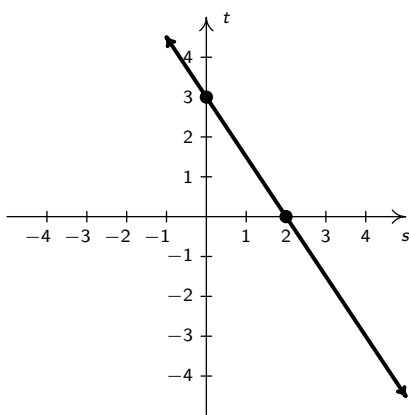
- $(\sqrt{5}, 3)$ and $(\sqrt{5}, -4)$.

- Slope: undefined

- Equation: $x = \sqrt{5}$

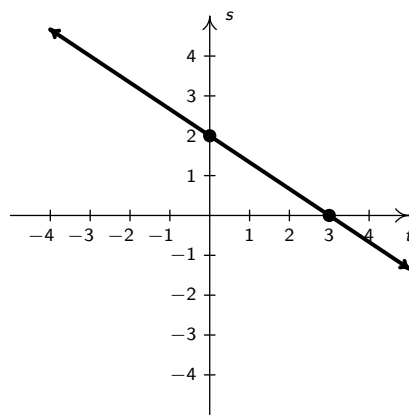


EXAMPLE: Graph $3s + 2t = 6$ below on each of the given pairs of axes. What are the slopes in each case?



st -plane

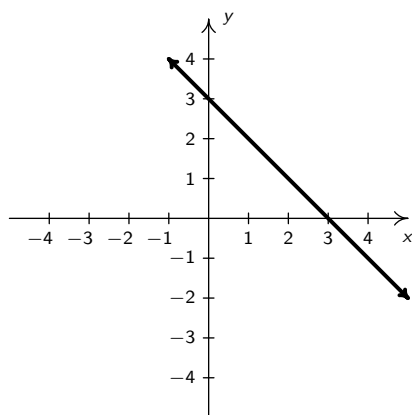
$$\text{Slope: } m = \frac{\Delta t}{\Delta s} = -\frac{3}{2}.$$



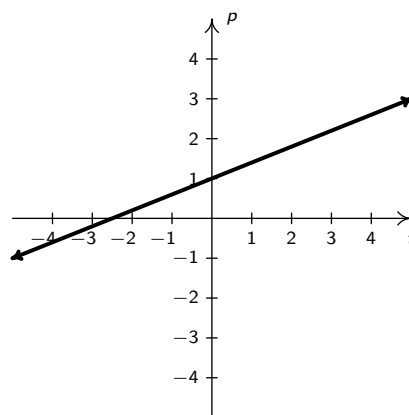
ts -plane

$$\text{Slope: } m = \frac{\Delta s}{\Delta t} = -\frac{2}{3}.$$

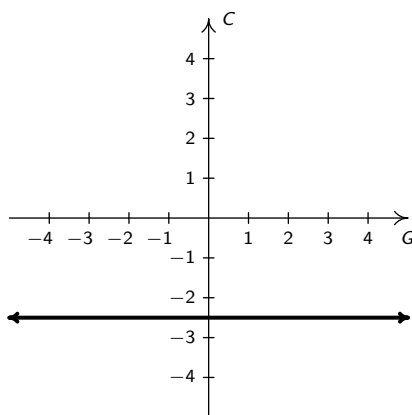
EXAMPLE: Find an equation of the following lines, where possible.



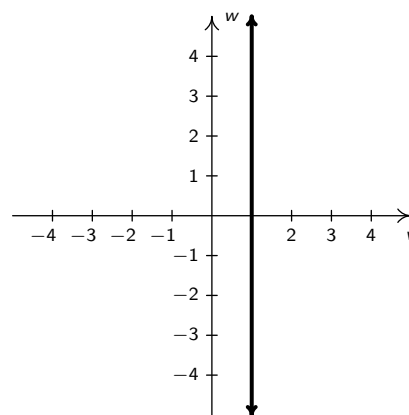
$$\text{Equation: } y = -x + 3$$



$$\text{Equation: } p = \frac{2}{5}t + 1$$



$$\text{Equation: } C = -2.5$$



$$\text{Equation: } v = 1$$