

### 7.4 Graphing Direct Variation Models

- Constant of variation tells how  $x, y$  are related

$$y = kx$$

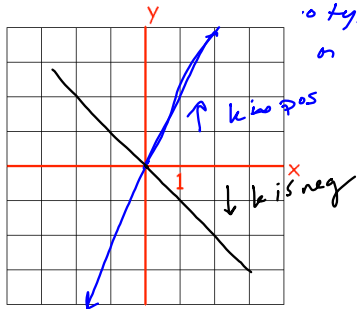
Constant of Variation is slope in reference to graphs

$$y = kx$$

$k$  is slope

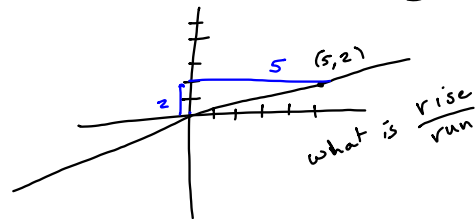
$(0, 0)$  is a part of graph

In a 4 quadrant system  
2 type of graphs

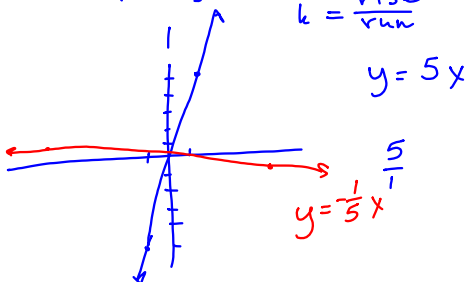


Writing Equations from graphs

$$y = \left(\frac{2}{5}\right)x$$



Graphing  $y = kx$   
 $k = \frac{\text{rise}}{\text{run}}$



$$\text{rise} = 30 \quad \text{run} = -20$$

$$y = -\frac{3}{2}x \quad k = \frac{\text{rise}}{\text{run}} = -\frac{30}{20} = -\frac{3}{2}$$