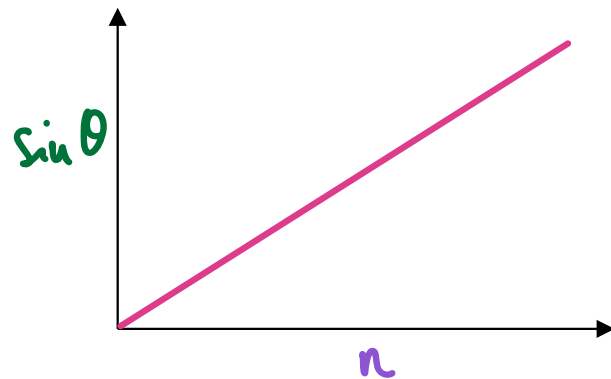




Diffraction Grating - Results

$$n\lambda = d \sin \theta$$
$$\sin \theta = \frac{\lambda}{d} n$$
$$y = mx + c$$



Method 1: A laser was shone through a diffraction grating onto a screen. The following data was recorded for the bright maxima on the screen:

Distance to screen: 1.600 m Diffraction grating: 80 lines mm^{-1}

Order	Distance from central maxima / mm	$\theta / ^\circ$	$\sin \theta$
1	79		
2	160		
3	246		
4	332		
5	417		
6	508		

$$\theta = \tan^{-1} \left(\frac{\downarrow}{1.600} \right)$$

