

- (b) The following equation of motion can be used to calculate the acceleration due to gravity, g .

$$x = ut + \frac{1}{2}at^2,$$

Where u = initial velocity = 0
 x = height, h and
 a = acceleration due to gravity, g

This gives $h = \frac{1}{2}gt^2$

Plot a suitable graph to determine the acceleration due to gravity. Include on your graph: error bars; a line of maximum gradient; a line of minimum gradient. [6]

