Clear headings and units for columns (1)
At least 1 repeat reading at each length (1)
Correct values for the mean time (1)
All time values quoted to 0.01s (1) [accept 0.1s]
Full range of length used, expressed to 1mm i.e. 60.0 cm not 60 cm
(no 2 values closer than 15cm used) (1)

(c) (i) Using your results in part *(b)*, complete the following table for T^2 [where T is the period of **one** oscillation] against l, the length of the pendulum. [3]

length, l (.....)	Mean time for 10 oscillations (.....)	Mean time for **one** oscillation, T (.....)	T^2 (.....)

T calculated correctly (1)
T^2 calculated correctly (accept 2 or 3 significant figures) (1)
Units correct (1)
(Do not penalise for significant figures for length and T)

(ii) Plot a graph of T^2 (vertical axis) against l (horizontal axis) on the grid below. [5]

***Do not penalise** incorrectly-orientated graph*

- *Title and units on both axes (1)*
- *Sensible scales (over half page used to plot the points, not multiples of 3) (1)*
- *All points plotted correctly to within ½ division (2 marks)*
  (Penalise 1 mark for each incorrect plot to a maximum penalty of 2)
- *Good line of best fit consistent with data (1)*

(iii) Calculate a value for the gradient of the graph and include appropriate units. [3]

- *Large triangle used (should be close to the extremities of the line of best fit)*
  [or 2 equivalent suitable points indicated on graph] (1)
- *Gradient calculated correctly (1)*
- *Units of gradient correct (s^2m^{-1}) (1)*
  (ecf on axis orientation ms^{-2})