



- (iv) Determine the y -intercept of the line of best fit. Do **not** include the absolute uncertainty.

y -intercept = [1]

- (d) (i) Using your answers to (a), (c)(iii) and (c)(iv), determine the values of R and I_0 . Include appropriate units.

Data: $t = (30 \pm 1)\text{s}$

$R = \dots\dots\dots$

$I_0 = \dots\dots\dots$ [3]

- (ii) Determine the percentage uncertainty in R .

percentage uncertainty in $R = \dots\dots\dots$ % [1]

- (e) The experiment is repeated with the same value of t . Determine the combined capacitance C that gives a value of V of 1.20 V.

$C = \dots\dots\dots$ F [1]

[Total 15]

