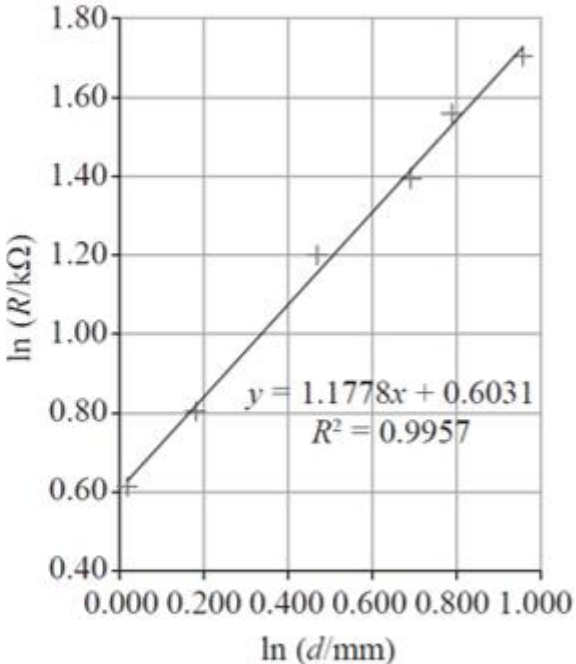


Question number	Acceptable answers	Additional guidance	Mark																												
(i)	<ul style="list-style-type: none"> Ln values correct and to 3 or 4 SF (1) <table border="1" data-bbox="395 273 1027 651"> <thead> <tr> <th>d/m</th> <th>$R/k\Omega$</th> <th>$\ln(d/m)$</th> <th>$\ln(R/k\Omega)$</th> </tr> </thead> <tbody> <tr> <td>1.00</td> <td>1.79</td> <td>0.000</td> <td>0.582</td> </tr> <tr> <td>1.20</td> <td>2.24</td> <td>0.182</td> <td>0.806</td> </tr> <tr> <td>1.60</td> <td>3.32</td> <td>0.470</td> <td>1.200</td> </tr> <tr> <td>2.00</td> <td>4.04</td> <td>0.693</td> <td>1.396</td> </tr> <tr> <td>2.20</td> <td>4.70</td> <td>0.788</td> <td>1.548</td> </tr> <tr> <td>2.60</td> <td>5.50</td> <td>0.956</td> <td>1.705</td> </tr> </tbody> </table> <ul style="list-style-type: none"> Labels and unit (1) Scales (1) Plots (1) Line of best fit (1) 	d/m	$R/k\Omega$	$\ln(d/m)$	$\ln(R/k\Omega)$	1.00	1.79	0.000	0.582	1.20	2.24	0.182	0.806	1.60	3.32	0.470	1.200	2.00	4.04	0.693	1.396	2.20	4.70	0.788	1.548	2.60	5.50	0.956	1.705	See marking guidance for graph plotting	5
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(i) (continued)			
(ii)	<ul style="list-style-type: none"> Finds gradient with large triangle – at least half the plotted length (1) $1.13 < p < 1.23$ to 2/3 SF and no units (1) Obtains $k = 1.8$ (1) States relationship between R and d (1) 		4