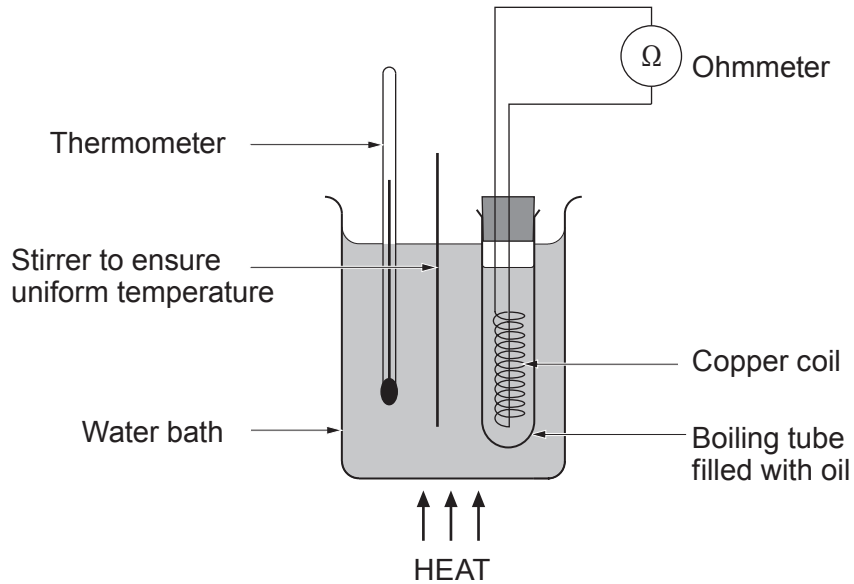


**Data Analysis Task**

A Physics student carried out an experiment to find the temperature coefficient of resistance,  $\alpha$ , of copper. The following apparatus was used.



The resistance of the copper coil was recorded as the water bath was heated from 10 to 80 °C. Repeat readings were recorded as the water cooled back down to 10 °C.

Temperature, $\theta$ / °C	Resistance heating, $R_\theta / \Omega$	Resistance cooling, $R_\theta / \Omega$	Mean resistance, $R_\theta / \Omega$	Absolute uncertainty / $\Omega$
10 $\pm$ 1	4.89	5.05		
20 $\pm$ 1	5.12	5.24		
30 $\pm$ 1	5.26	5.34		
40 $\pm$ 1	5.40	5.60		
50 $\pm$ 1	5.62	5.80		
60 $\pm$ 1	5.80	6.00		
70 $\pm$ 1	5.97	6.13		
80 $\pm$ 1	6.19	6.31		

(a) Complete the final two columns of the table.

[2]