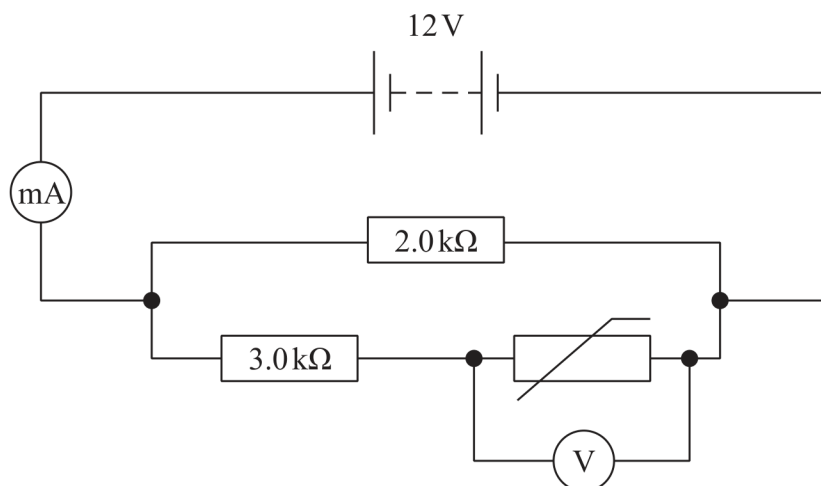
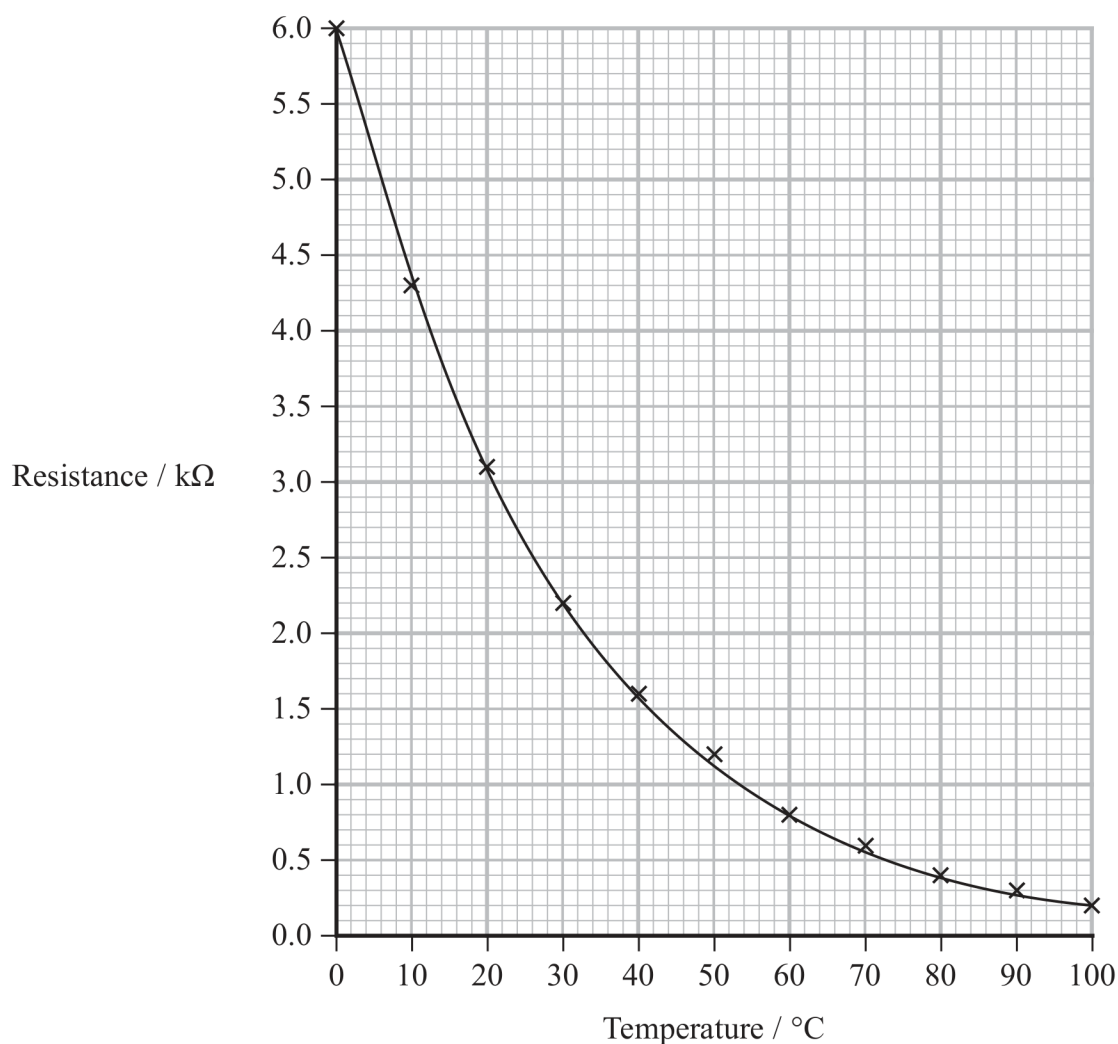


12 A student set up the circuit shown. The battery had a negligible internal resistance.



The resistance of the thermistor varies with temperature, as shown by the graph.



(a) Determine the milliammeter reading when the temperature of the thermistor is 54°C.

(4)

Milliammeter reading = mA

(b) (i) Explain how decreasing the temperature of the thermistor affects the voltmeter reading. Do not include calculations in your answer.

(2)

(ii) Explain how decreasing the temperature of the thermistor affects the power dissipated by the 2.0 kΩ resistor. Do not include calculations in your answer.

(2)