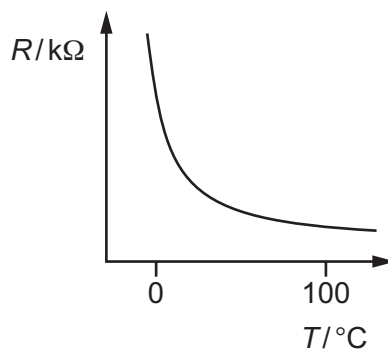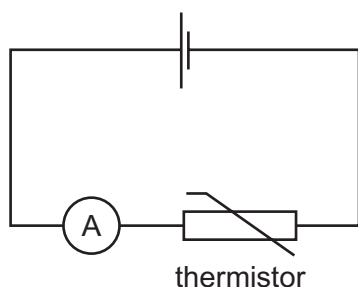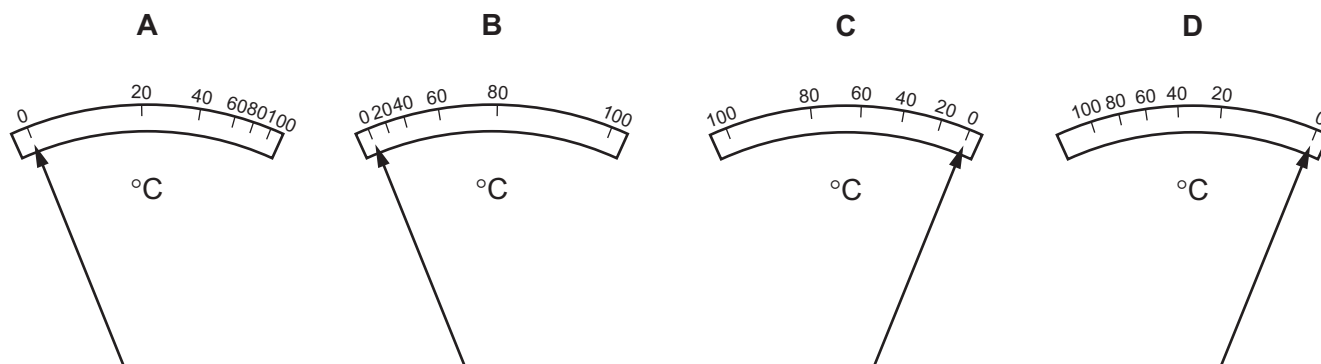4 In the circuit shown, an analogue ammeter is to be recalibrated as a thermometer. The ammeter is connected in series with a thermistor. The thermistor is a component with a resistance that varies with temperature. The graph shows how the resistance R of the thermistor changes with temperature T.

Which diagram could represent the temperature scale on the ammeter?

A

B

C

D

5 The sides of a cube are measured with calipers.

The measured length of each side is $(30.0 \pm 0.1)\,\text{mm}$.

The measurements are used to calculate the volume of the cube.

What is the percentage uncertainty in the calculated value of the volume?

A 0.01%   **B** 0.3%   **C** 1%   **D** 3%