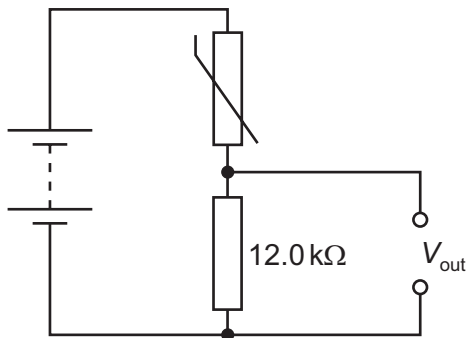


- 37** A battery of negligible internal resistance is connected in series with a thermistor and a fixed resistor of resistance $12.0\text{ k}\Omega$, as shown.



The table shows the resistance of the thermistor at two different temperatures.

temperature $/^{\circ}\text{C}$	resistance of thermistor/ $\text{k}\Omega$
20.0	12.0
50.0	5.00

The potential difference V_{out} across the fixed resistor is 4.50 V when the thermistor is at a temperature of 20.0°C .

What is V_{out} when the thermistor is at a temperature of 50.0°C ?

- A** 2.65 V **B** 3.18 V **C** 6.35 V **D** 10.8 V