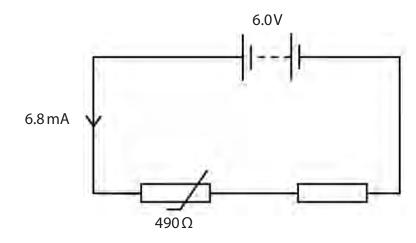
**6** The diagram shows an electric circuit.



(a) When the thermistor is in hot water, its resistance is 490  $\Omega$ .

Show that the resistance of the fixed resistor is about  $400\,\Omega$ .

(5)

(b) Explain how the voltage across the fixed resistor changes when the hot water is replaced with cold water.

(3)

(Total for Question 6 = 8 marks)

