

to have resistance of  $12\ \Omega$ .

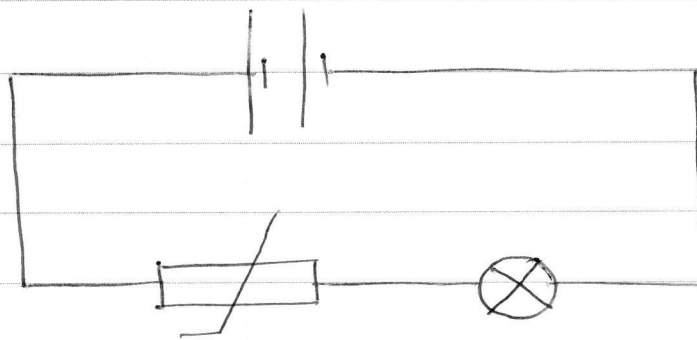
(a) Work out the power of the battery.

(b) Work out the power dissipated in the lamp.

~~(c)~~ The resistance of the variable resistor is now reduced.

(c) State and explain what happens to the brightness of the lamp.

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The circuit given above shows a thermistor connected in series with a lamp to a battery. The room temperature is  $20^\circ\text{C}$ .

When the resistance of the thermistor is  $5\ \Omega$ , the current supplied by the battery is  $3\text{A}$  and the power dissipated in the