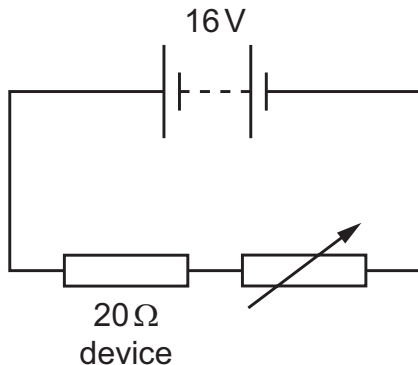


- 37 An electrical device of fixed resistance $20\ \Omega$ is connected in series with a variable resistor and a battery of e.m.f. $16\ \text{V}$ and negligible internal resistance.



The power dissipated in the electrical device is $4.0\ \text{W}$.

What is the resistance of the variable resistor?

- A** $16\ \Omega$ **B** $36\ \Omega$ **C** $44\ \Omega$ **D** $64\ \Omega$