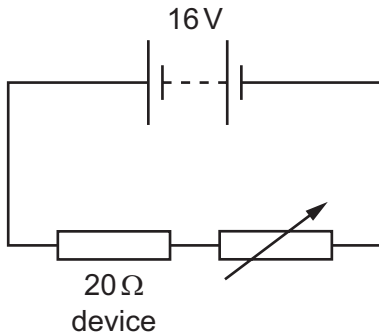


- 37** An electrical device of fixed resistance  $20\ \Omega$  is connected in series with a variable resistor and a battery of e.m.f.  $16\ \text{V}$  and negligible internal resistance.



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**  $64\ \Omega$