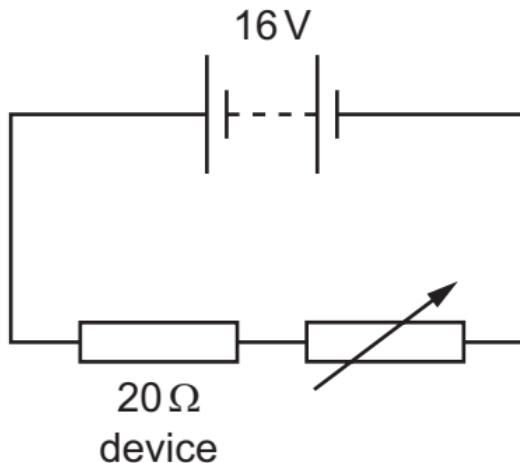


- 37 An electrical device of fixed resistance  $20\Omega$  is connected in series with a variable resistor and a battery of e.m.f.  $16\text{ V}$  and negligible internal resistance.



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  $64\Omega$