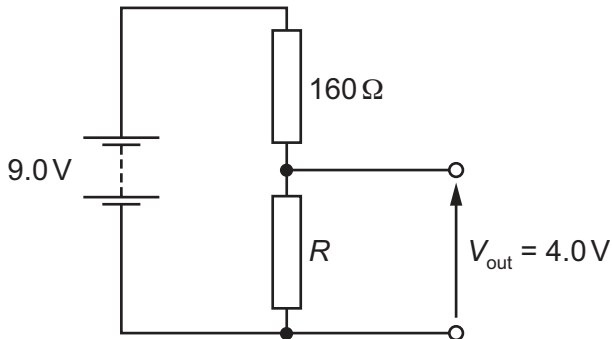


- 37** The circuit diagram shows a battery of electromotive force (e.m.f.) 9.0 V and negligible internal resistance. It is connected to two resistors of resistances $160\,\Omega$ and R . The output potential difference V_{out} is 4.0 V .



What is the resistance R ?

- A** $32\,\Omega$ **B** $49\,\Omega$ **C** $71\,\Omega$ **D** $128\,\Omega$

- 38** In the circuit shown, XY is a length l of uniform resistance wire. A potential difference is applied