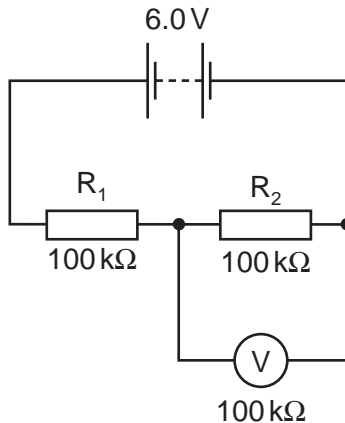


- 37** In the circuit shown, the 6.0 V battery has negligible internal resistance. Resistors  $R_1$  and  $R_2$  and the voltmeter have resistance  $100\text{ k}\Omega$ .



What is the current in the resistor  $R_2$ ?

- A**  $20\text{ }\mu\text{A}$                       **B**  $30\text{ }\mu\text{A}$                       **C**  $40\text{ }\mu\text{A}$                       **D**  $60\text{ }\mu\text{A}$

- 38** The unknown e.m.f.  $\mathcal{E}$  of a cell is to be determined using a potentiometer circuit. The balance