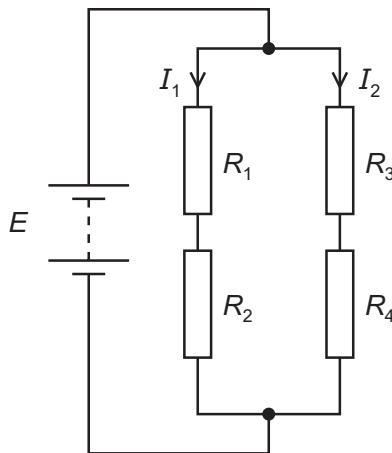


- 37 A battery of electromotive force (e.m.f.)  $E$  and negligible internal resistance is connected to four resistors of resistances  $R_1$ ,  $R_2$ ,  $R_3$  and  $R_4$ .



The currents  $I_1$  and  $I_2$  in the resistors are as shown.

Which equation is correct?

- A  $0 = I_1(R_1 + R_2) + I_2(R_3 + R_4)$
- B  $0 = I_1(R_1 + R_2) - I_2(R_3 + R_4)$
- C  $E = I_1(R_1 + R_2) + I_2(R_3 + R_4)$
- D  $E = I_1(R_1 + R_2) - I_2(R_3 + R_4)$