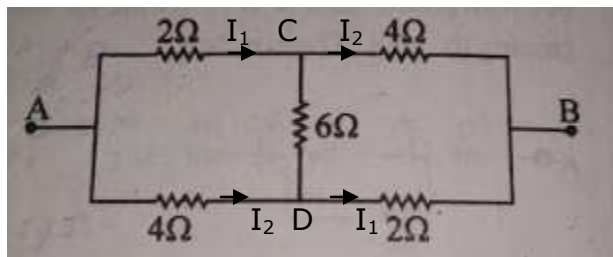


Q- Find equivalent resistance between A and B.



As the circuit is symmetrical from A to B and from B to A, the currents are as shown in the figure. If the potential difference between A and B is V than using Kirchoff's mesh law for ACB we get

$$V = 2 * I_1 + 4 * I_2 \quad \text{----- (1)}$$

And for mesh ACDB we get

$$V = 2 * I_1 + 6 * (I_1 - I_2) + 2 * I_1$$

$$\text{Or } V = 10 * I_1 - 6 * I_2 \quad \text{----- (2)}$$

Solving equations (1) and (2) we get

$$I_2 = 4/5 I_1$$

Thus from (1)

$$I_1 = 5V/26$$

$$\text{And } I_2 = 4V/26$$

Thus, the total current through the circuit will be $I_1 + I_2 = 9V/26$

Hence the equivalent resistance of the circuit will be

$$R = V/I = 26/9 = 2.88888 \text{ Ohm}$$

(none of your answer is matching it, but the analysis shows that above result is correct)