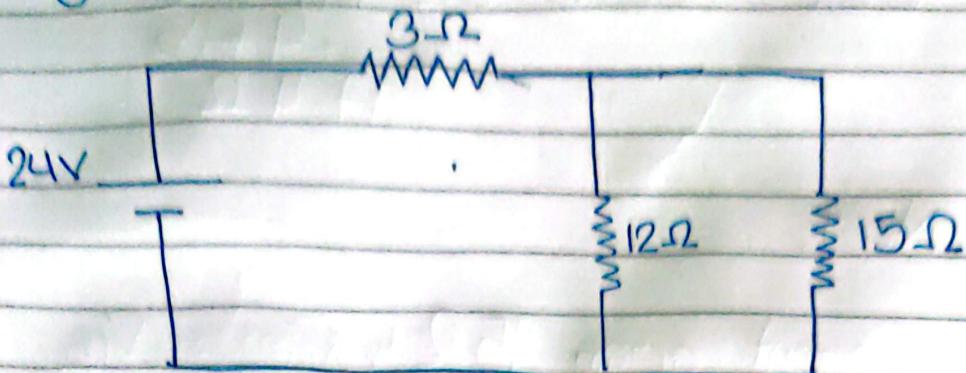
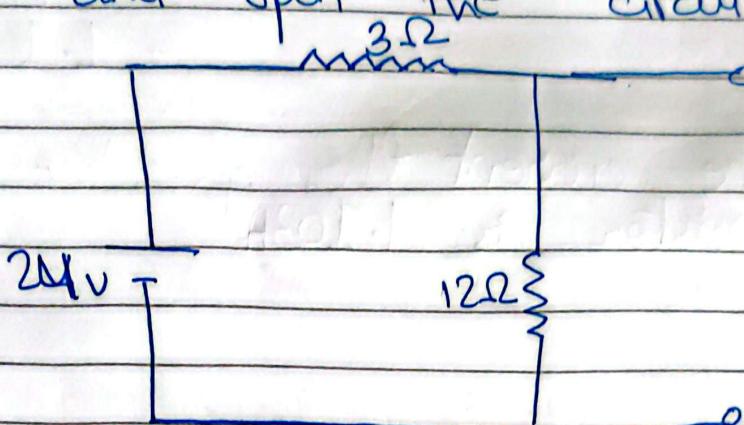


Find the current through $15\ \Omega$ resistor using Thevenin's theorem.



Step 1 Remove the $15\ \Omega$ resistor and open the circuit



Now we have $3\ \Omega$ and $12\ \Omega$ resistor in parallel.

$$R_{th} = \frac{3 \times 12}{3 + 12} = 2.4\ \Omega$$

For V_{th} apply voltage divider between $3\ \Omega$ and $12\ \Omega$

$$V_{th} = 24 \times \frac{12}{3+12} = 19.2V$$

Reconnecting the 15Ω resistor,
 (R_T)

$$\begin{aligned}\text{Total Resistance, } R_T &= R_{th} + 15 \\ &= 2.4 + 15 \\ &= 17.4 \Omega\end{aligned}$$

Now,

$$\begin{aligned}\text{Current across } 15\Omega \text{ resistor} &= \frac{V_{th}}{R_T} \\ &= \frac{19.2}{17.4} \\ &= 1.103 A\end{aligned}$$

\therefore The current through the 15Ω resistor is $1.103 A$