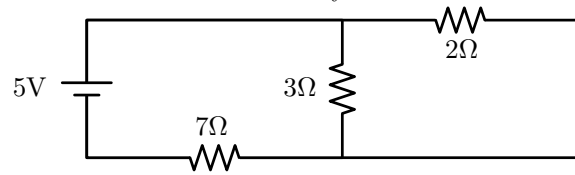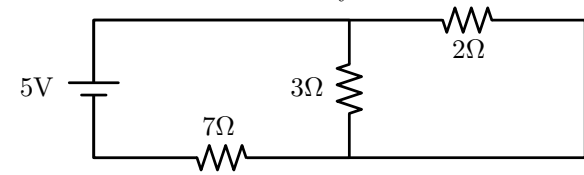Find the current drawn from the battery.

Find the current drawn from the battery.

Solution: The 3 and $2\Omega$ resistors are in parallel. Thus they can be replaced by a single resistor of resistance

$$\frac{1}{R_P} = \frac{1}{3\Omega} + \frac{1}{2\Omega} = \frac{5}{6\Omega} \longrightarrow R_P = \frac{6}{5}\Omega = 1.2\Omega$$

This is in series with the $7\Omega$ resistor so the net resistance is

$$R_S = 7\Omega + 1.2\Omega = 8.2\Omega$$

And so the current is

$$I = \frac{V}{R} = \frac{5V}{8.2\Omega} = 0.61A$$