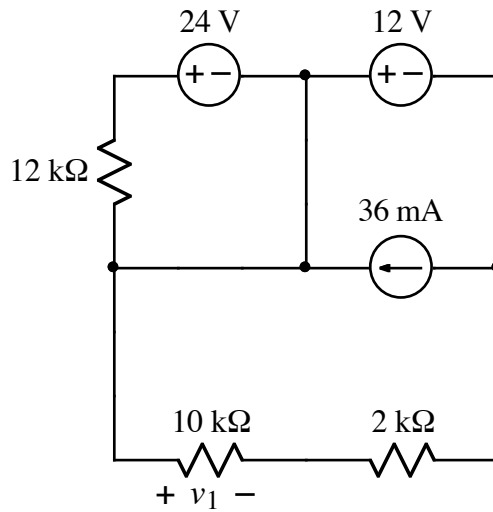


Ex:

Calculate v_1 .

SOL'N: By following wires in the circuit, we observe that the $10\text{ k}\Omega$ and $2\text{ k}\Omega$ resistors are directly across the 12 V source. Thus, the voltage divider formula applies:

$$v_1 = 12\text{ V} \frac{10\text{ k}\Omega}{10\text{ k}\Omega + 2\text{ k}\Omega} = 12\text{ V} \left(\frac{5}{6}\right) = 10\text{ V}$$