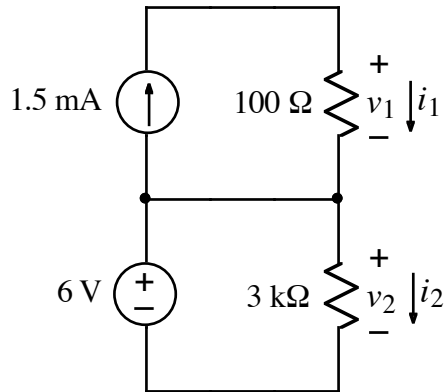


Ex:



Use Kirchhoff's laws to find i_1 and v_2 .

SOL'N: If we consider a node between the 1.5 mA source and the 100 Ω resistor, we can show that the same current flows in the current source and the 100 Ω resistor:

$$-1.5 \text{ mA} + i_1 = 0 \Rightarrow i_1 = 1.5 \text{ mA}$$

From the lower voltage loop we find that $v_2 = 6 \text{ V}$.

$$6 \text{ V} - v_2 = 0 \Rightarrow v_2 = 6 \text{ V}$$

Note that we can find these quantities using only Kirchhoff's laws. If we want to find v_1 and i_2 , we can use Ohm's law.