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 $100 \Omega$ resistor, we can show that the same current flows in the current source and the $100 \Omega$ resistor:

$$
-1.5 \mathrm{~mA}+i_{1}=0 \Rightarrow i_{1}=1.5 \mathrm{~mA}
$$

From the lower voltage loop we find that $v_{2}=6 \mathrm{~V}$.

$$
6 \mathrm{~V}-v_{2}=0 \Rightarrow v_{2}=6 \mathrm{~V}
$$

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.

