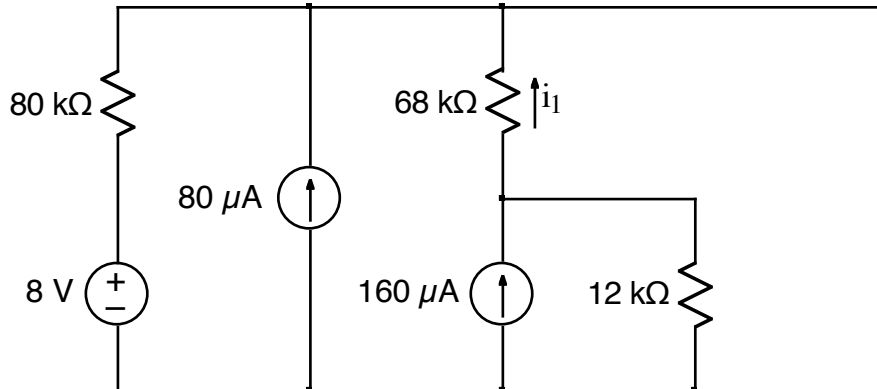


Ex:



Calculate i_1 .

sol'n: We have a current divider consisting of the $160 \mu\text{A}$ src and the $68\text{k}\Omega$ and $12\text{k}\Omega$ resistors.

$$i_1 = 160 \mu\text{A} \cdot \frac{12\text{k}\Omega}{12\text{k}\Omega + 68\text{k}\Omega}$$

$$= 160 \mu\text{A} \cdot \frac{12\text{k}\Omega}{80\text{k}\Omega}$$

$$i_1 = 24 \mu\text{A}$$

Note: The $12\text{k}\Omega$ and $68\text{k}\Omega$ resistors are parallel since they connected by wires at either end.

We know the total current flowing into the $12\text{k}\Omega$ and $68\text{k}\Omega$ resistors, and the resistors have the same voltage across them.