Example:
Consider the circuit shown in Figure 1. Determine the current measured by the ammeter.

![Figure 1](image)

**Solution:** Use current division in the left part of the circuit to get

\[ i_a = \left( \frac{8}{8+16} \right) (-3) = -1 \text{ A} \]

Next, denote the current measured by the ammeter as \( i_m \) and use current division in the right part of the circuit to get

\[ i_m = \left( \frac{16}{16+4} \right) (5i_a) = 4i_a \]

Combining these equations gives:

\[ i_m = -4 \text{ A} \]