
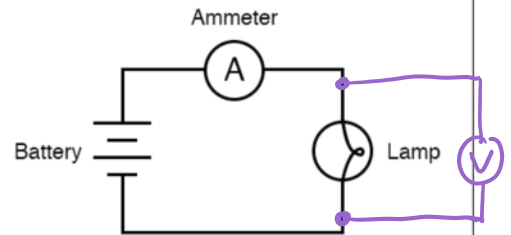


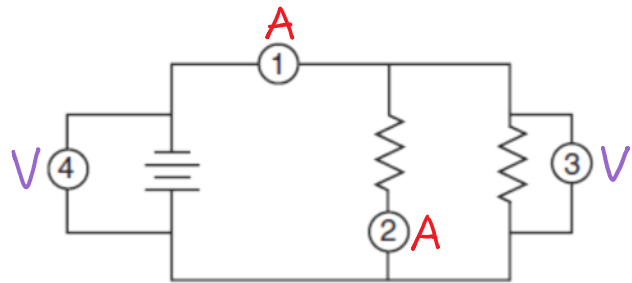
Science 9 – 3-4 C2: Series vs. Parallel Circuit Part 2 – Current

- Current (**how fast are the electrons running**) is measured by a device called an Ammeter.
- The schematic symbol for ammeter is 
- Ammeter is connected in Series with the device
 - Think of the ammeter as a people counter, you have to stand in the path of the people to count them.



Comparing to Voltmeter

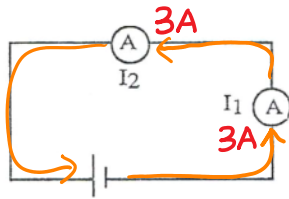
Voltmeter is connected in parallel
 Ammeter is connected in Series



Current in Series and Parallel

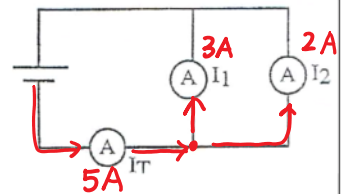
Calculating Current in **SERIES**

- **Current (I)**
 - When you place an Ammeter in **SERIES** (SIDE BY SIDE) the current s are the same
- **Series:**
 $I_{Total} = I_1 = I_2$



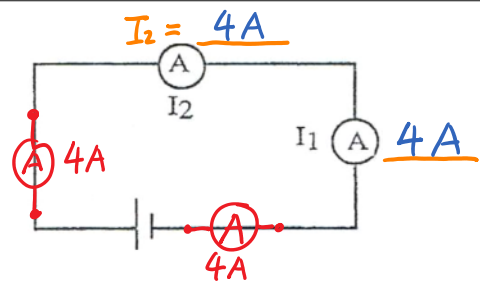
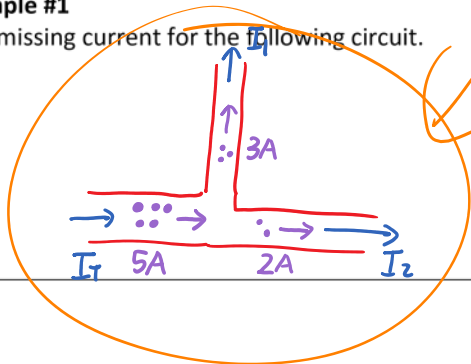
Calculating Current in **PARALLEL**

- **Current (I)**
 - When you place an Ammeter in **PARALLEL** (OPPOSITE FROM EACH OTHER), you add the current to find a total.
- **Parallel:**
 $I_{Total} = I_1 + I_2$



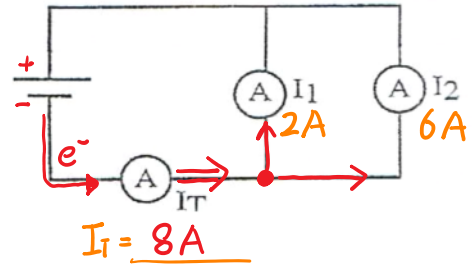
Example #1

Find missing current for the following circuit.



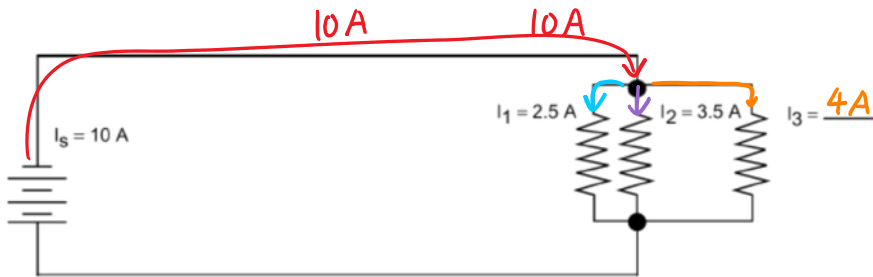
Example #2

Find the total current for the following circuit.



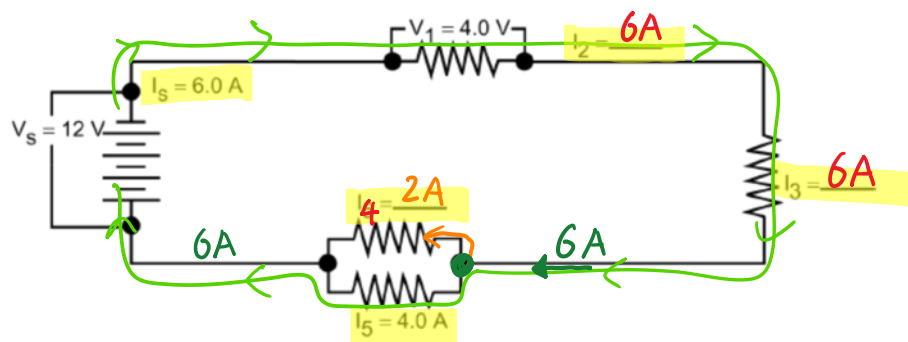
Example #3

$10A - 2.5A - 3.5A = 4$



2. $I_3 =$ _____

Example #4

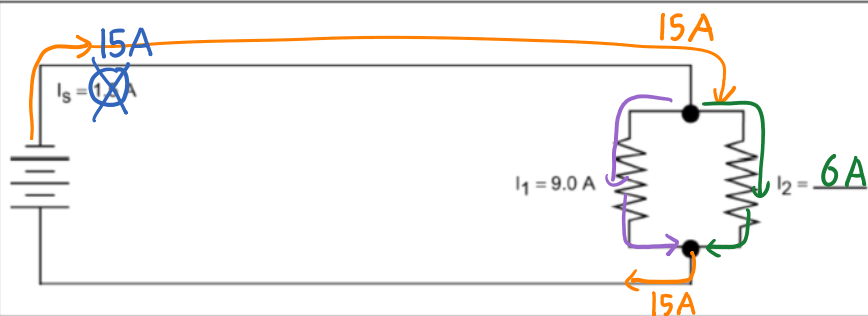


3. $I_5 =$ _____

$I_3 =$ _____

$I_5 =$ _____

Example #5



1. $I_2 =$ _____