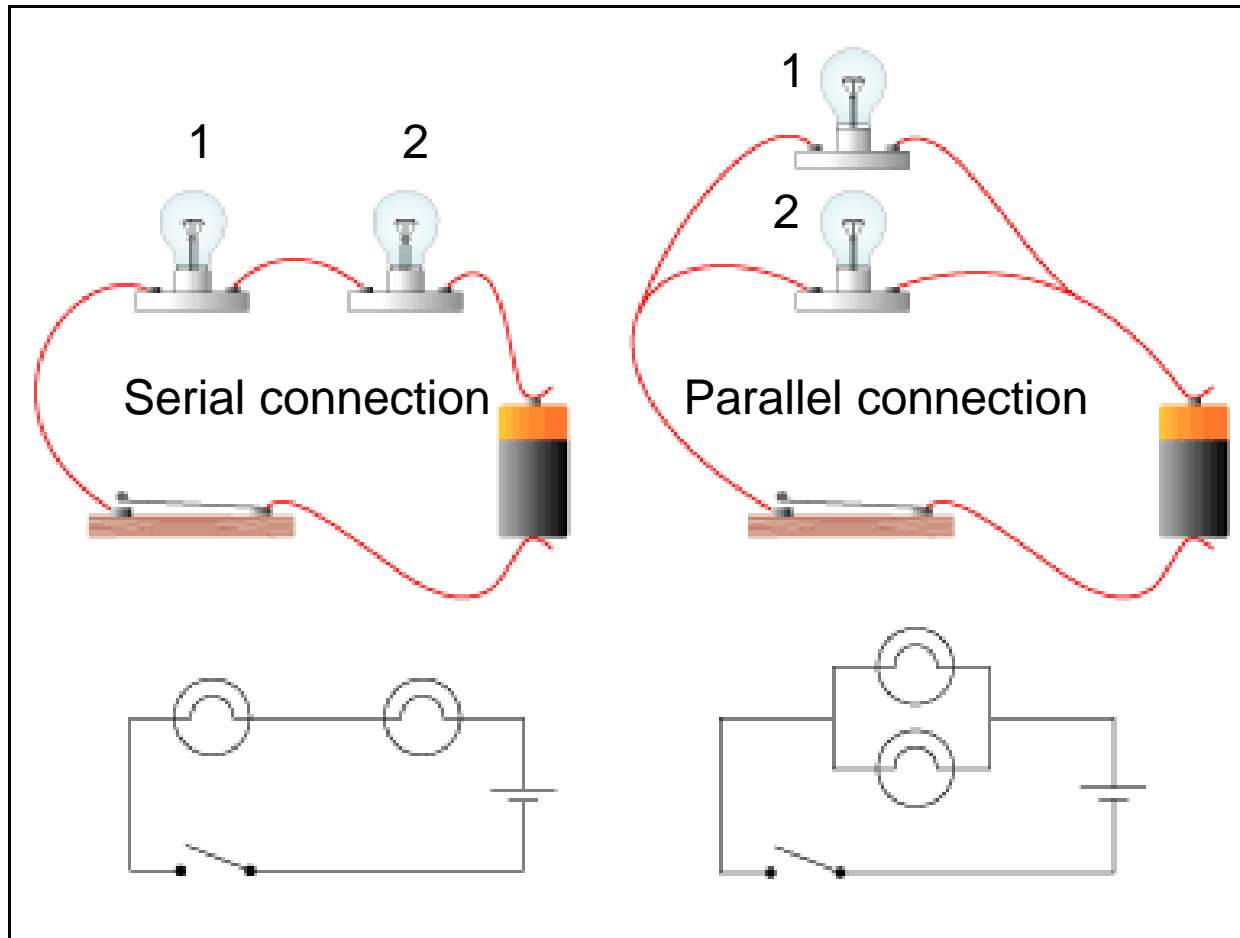


# Serial and Parallel Circuits



## Serial:

- Currents are the same:  $I_1=I_2$
- Voltage is added:  $V= V_1+V_2$

## Parallel:

- Currents are added:  $I=I_1+I_2$
- Voltages are the same:  $V_1=V_2$

# Homework

## Problem 1

Two resistors, of  $10\ \Omega$  each, are connected in parallel to a battery with voltage  $5\ \text{V}$ . Find the current through each of the resistors. Find the current through the battery. What single resistor connected to the same battery will produce the same current flowing through the battery?