

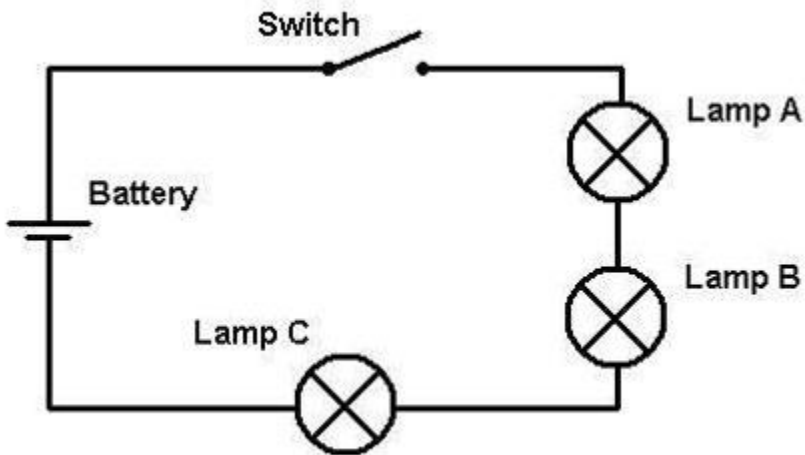
Exercises p90 Answers

1. a) Identify the circuit as either series or parallel.

series

- b) Which lamps will be on if one does not press down on the switch.

none



2. a) Identify the circuit as either series or parallel.

parallel

- b) If we press down on switches 1,4 and 5 (S_1 , S_4 , and S_5), which light bulb, if any, will turn on?

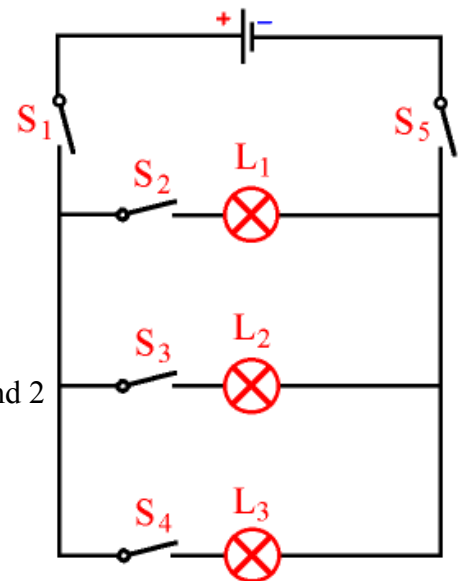
L_3

- c) On which switches do you have to press to get lights 1 and 2 to go on?

S_1, S_2, S_3, S_5

- d) What do you have to press to turn on all three lights?

All 5 switches



3. In your house, do you believe most electrical components are connected in parallel? Why?

It gives you the option of turning one or more things off at a time. Total current grows as more things are connected in parallel.

3. Draw four resistors in parallel. Include a battery and an ammeter positioned to measure total current from the battery.
4. Draw four resistors in series. Include a battery and a voltmeter positioned so that it measures the voltage of the battery.