Name_____Period_____

Live Wires!!

Attempt to build the circuits below individually. Your score depends on the highest level you complete. You only need the circuit to perform the task of last level; previous circuits can be dismantled. You will need to draw out the schematic of how you achieved each step on the back of this page. When drawing your schematic, use the appropriate symbols.

1) Using 3 light bulbs, a battery, alligator clips, and a switch, create a circuit where
    a. All light bulbs will turn on if the switch is closed
    b. All light bulbs will turn off if the switch is open.
2) Using 2 light bulbs, a battery, alligator clips, and switches, create a circuit where
    a. if both switches are closed both light bulbs are on
    b. If one switch is closed and one switch is open one light bulb is on and one light bulb is off.
3) Using 3 light bulbs, a battery, alligator clips, and 2 switches, create a circuit where
    a. If all switches are closed all of the lights are on
    b. If one switch is closed two light bulbs are one and one light bulb is off
4) Using 3 light bulbs, a battery, alligator clips, and switches create a circuit where
    a. If all switches are closed all light bulbs are on
    b. If one switch is closed one light bulb is on
    c. If two switches are closed two light bulbs are on
5) Using 3 light bulbs, a battery, alligator clips, and 3 switches, create a circuit where
    a. If all switches are closed all of the light bulbs are on
    b. If one switch is open all of the light bulbs are off
    c. If two switches are closed two light bulbs are on.
6) Create your own crazy circuit and draw it.