

## Chapter 7 Test

1. Decide whether each of the following statements is true or false. If it is false, rewrite it to make it true.

**a) True/False** Current has only one path to follow in a series circuit.

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**b) True/False** Current decreases as you add loads in parallel.

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**c) True/False** Voltage across the load changes as you add more sources in series.

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**d) True/False** A switch can control only one device at one time.

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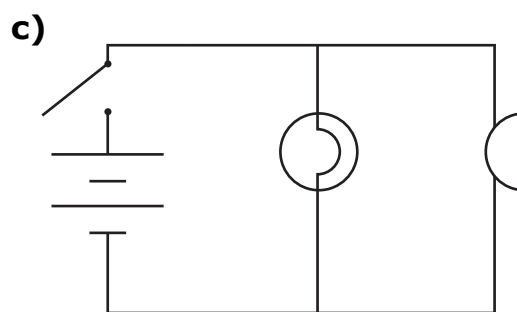
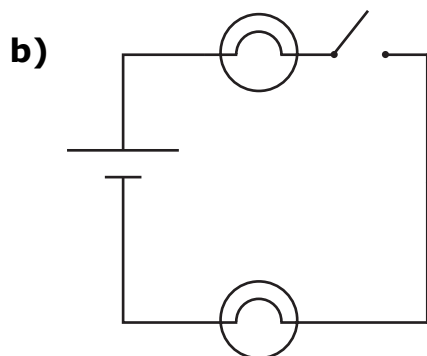
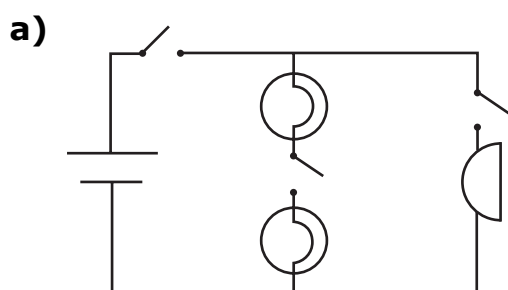
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2. Write the correct term from the text box to describe each of the circuits below.

series circuit

parallel circuit

combination circuit



**a)** \_\_\_\_\_

**b)** \_\_\_\_\_

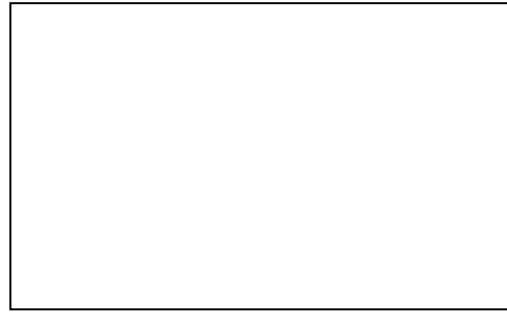
**c)** \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**BLM 7-7**  
(continued)

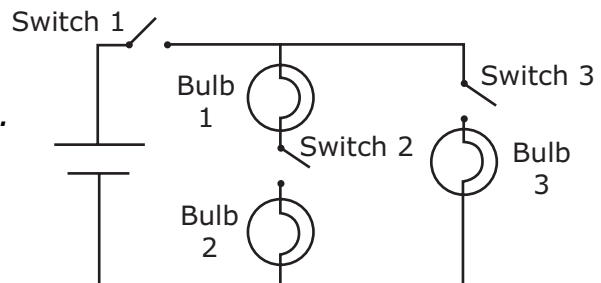
- 3.** Draw a diagram of a circuit with three bulbs. In this circuit, one switch must be able to control all bulbs. Another switch must be able to turn off one bulb without affecting the other two.



- 4.** Describe a disadvantage of bulbs connected in series compared to bulbs connected in a parallel circuit.

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*Use the circuit diagram for questions 5 to 8.*



- 5.** What will happen when Switch 1 is open and both Switch 2 and Switch 3 are closed?

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- 6.** What will happen when Switch 1 and Switch 3 are closed, and Switch 2 is open?

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- 7.** What will happen when Switch 1 and Switch 2 are closed, and Switch 3 is open?

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- 8.** Which light will be the brightest if all switches are closed?

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- 9.** Draw a diagram of a single circuit with three lights. One light can be turned on or off without affecting the other two. All lights can also be turned on or off at the same time by the same switch. Two separate switches can control one light.

