

Chapter 7 Practice 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 several paths to follow in a series circuit.

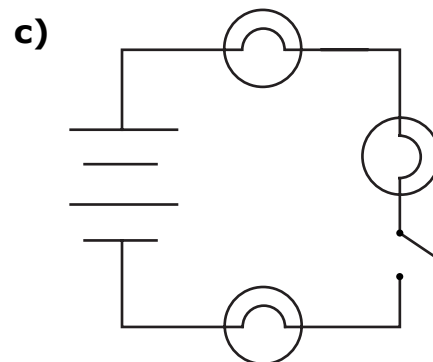
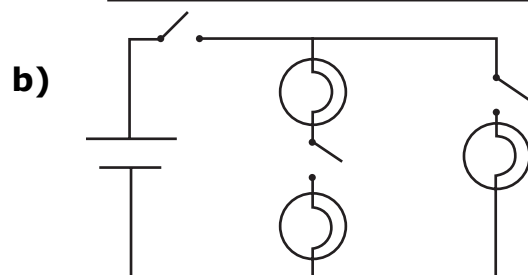
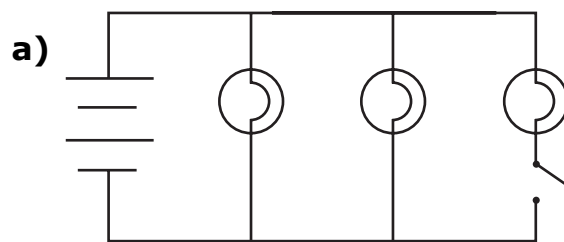
b) **True/False** Current increases as you add loads in parallel.

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

d) **True/False** A switch can control many devices at one time.

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

series circuit	parallel circuit	combination circuit
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- a) _____
 b) _____
 c) _____

Name: _____ Date: _____

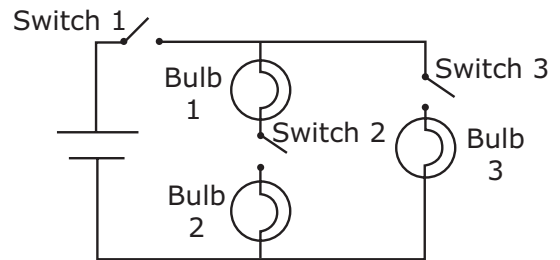
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- 3.** Draw a diagram of a circuit with three bulbs.
In this circuit, one switch must be able to control all bulbs. Another switch must be able to turn off two bulbs without affecting the other one.



- 4.** Describe an advantage that a circuit with bulbs connected in parallel would have over a circuit with bulbs connected in series.

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?

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

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

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

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

