Choose all of the following that are true. (Circle the letter in parenthesis before each that is true.)

(a) If the potential difference across a resistor is doubled, the power dissipated by the resistor will be doubled.

(b) If the potential difference across a resistor is doubled, the current flowing through the resistor will be doubled.

(c) If the current through a resistor is doubled, the potential difference across the resistor will be halved.

Suppose a wire of length $L$ is connected to the two ends of a battery, which maintains a potential difference $V$ across the wire. Current flows through the wire. Now suppose that the length of the wire is doubled, but otherwise the wire is identical. If this longer wire is connected to the same potential difference, will the current:

(d) be the same as before, because the potential difference is the same.

(e) be twice as great.

(f) be half as great.