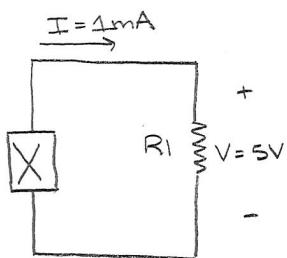


15. In the circuit below,  $R_1$  is connected to another circuit element, and has voltage and current as shown:



(2pts) a. From the information given, circuit element X is:

1. A voltage source
2. A current source
- (3.) Can't tell

(2pts) b. The size of resistor  $R_1$  is \_\_\_\_\_.

$$\text{Ohm's Law: } V = IR$$

$$R = \frac{V}{I} = \frac{5}{1\text{mA}} = 5\text{k}\Omega$$

(2pts) c. The power dissipated in  $R_1$  is \_\_\_\_\_.

$$\text{Watt's Law: } P = IV$$

$$P = IV = 1\text{mA} * 5\text{V} = 5\text{mW}$$