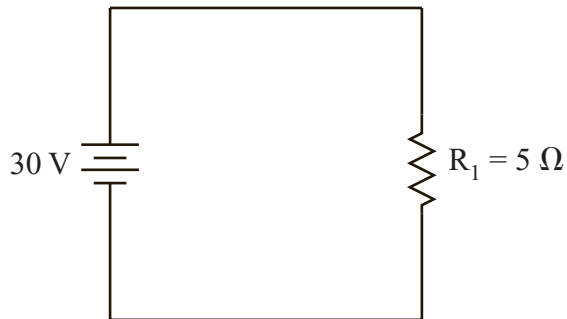


A simple circuit is shown below.



- a. Calculate the current in the circuit. Show your calculations and include units in your answer.

A second resistor, R_2 , with a resistance of 10Ω , is added to the circuit and placed in series with R_1 .

- b. Calculate the total resistance in this circuit. Show your calculations and include units in your answer.
- c. Calculate the current in this circuit. Show your calculations and include units in your answer.
- d. Describe how adding this second resistor, R_2 , in series affects the power output of the battery. Explain your answer.