

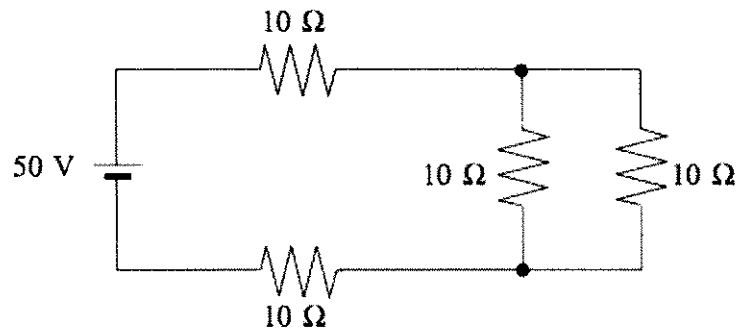
PHYSICS 12

Ohm's Law, Resistance, Power and Kirchhoff's Laws

Examples

1.

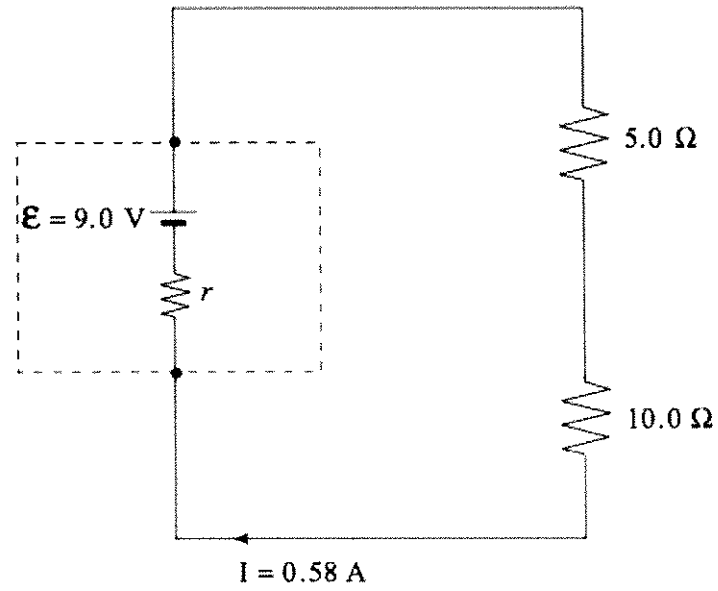
In the following circuit, what current is drawn from the battery?



- A. 1.3 A
- B. 1.7 A
- C. 2.0 A
- D. 5.0 A

2.

In the following circuit, what is the power loss in the battery?

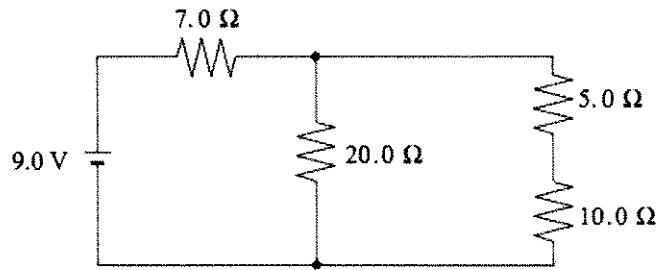


- A. 0 W
- B. 0.17 W
- C. 5.0 W
- D. 5.2 W

3.

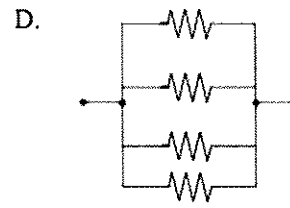
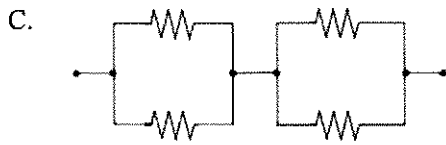
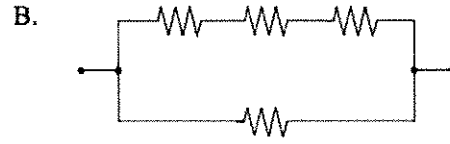
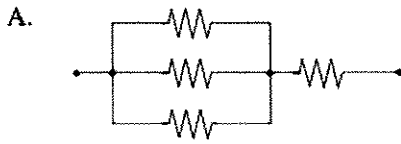
In the circuit shown below, determine the current through the $5.0\ \Omega$ resistor.

(7 marks)



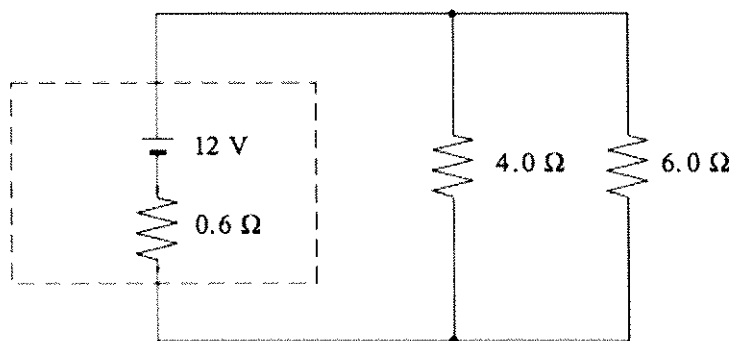
4.

Which of the following arrangements would draw the largest current when connected to a potential difference? All resistors have the same value.



5.

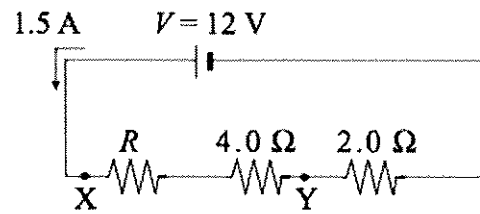
In the following circuit, what current flows through the $4.0\ \Omega$ resistor?



- A. 2.4 A
- B. 2.6 A
- C. 3.0 A
- D. 4.0 A

6.

In the following circuit, what is the magnitude of the potential difference between X and Y?



- A. 3.0 V
- B. 6.0 V
- C. 9.0 V
- D. 12 V