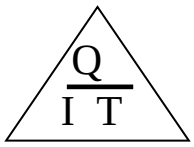

1. State the difference between conventional current and electron current.

2. What is the difference between direct current and alternating current?

3. A steady direct current of 2.5 A flows in a wire connected to a battery for 15 seconds. How much charge enters or leaves the battery in this time?

4. Convert 45 mA to amperes.

5. Convert 2.3 × 10-4 A to milliamperes.

6. Convert 450 μA to amperes.

7. A car light globe has a current of 3.5 A flowing through it. How much charge passes through it in 20 minutes?

8. What is the current flowing through an extension cord if 15 C of charge passes through it in 50 seconds?

9. Find the unknown quantity:

a) I = 0.4A
   Q = ?
   t = 20 s

b) I = ?
   Q = 240 C
   t = 300 s

c) I = 2 A
   Q = 400 C
   t = ?

d) I = ?
   Q = 140 C
   t = 4 min

e) I = 0.3 A
   Q = ?
   t = 1.5 hours

f) I = 0.9 A
   Q = ?
   t = 3 min

10.If there is a current of 10 amperes in a circuit for 10 minutes, what quantity of electric charge flows in through the circuit?

11. How much current must there be in a circuit if 100 coulombs flow past a point in the circuit in 4 seconds?

12. How much time is required for 10 coulombs of charge to flow past a point if the rate of flow (current) is 2 amperes?