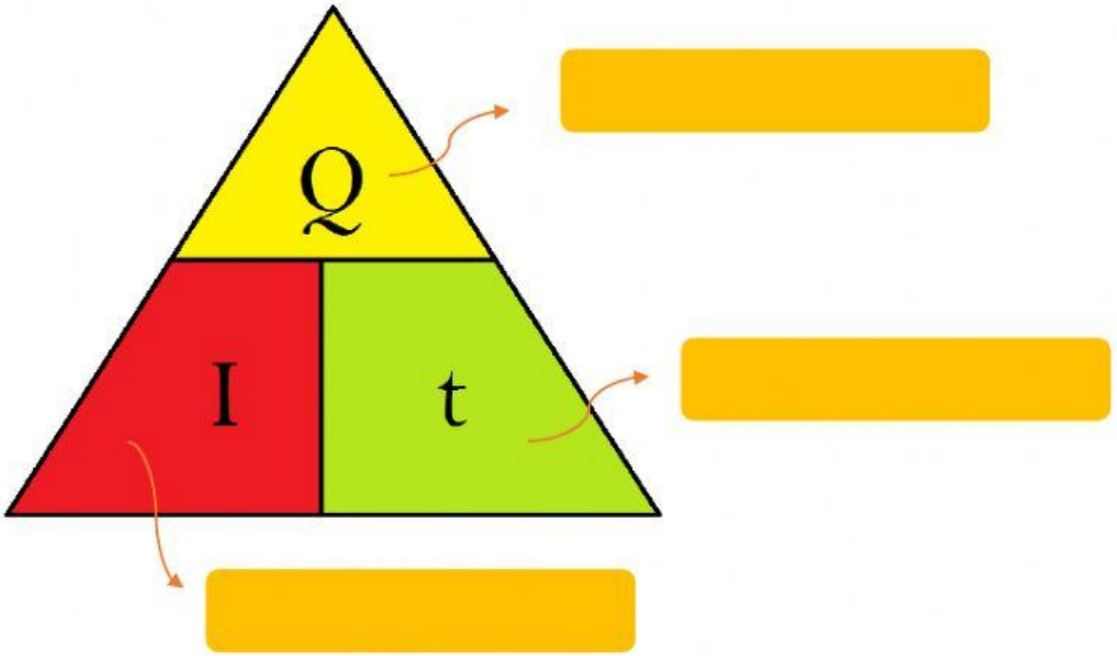
**BASIC ELECTRICITY_G11**

For each physical quantity on the left, write the letter of the matching unit of measurement on the right.

| | |
|---|---|
| _____ 1. charge | a. watt |
| _____ 2. potential energy | b ohm |
| _____ 3. current | c. coulomb |
| _____ 4. resistance | d. joule |
| _____ 5. electric potential difference | e. ampere |
| _____ 6. power | f. volt |




Electric Current  Time  Electric Charge

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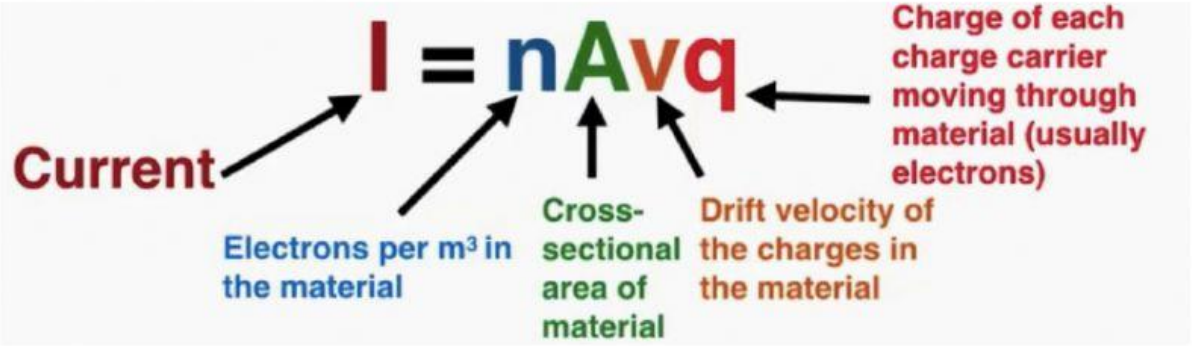
1. If a battery can produce a charge of 3000 mA for 1 hour before it is depleted, for **how long could it produce a current of 2000 mA** ?

   _____ hours

2. A hair dryer draws a current of 3 A. If it is switched on for 5 minutes. **How much charges that flow** ?

   _____ Coulombs




1. There are 6.5 x $10^{17}$ charge carries within volume of resistance R. The cross-sectional area is 2.4 x $10^{-6}$ $m^2$. The current flow is 1000 mA. **Calculate the drift velocity of the charge carries within the resistor R.**

2. The drift velocity of free electrons in a conductor is *v*, when a current *I* is flowing in it. If both the radius and current are doubled, then **the drift velocity will be _____.**

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**Fill in the BLANK.**

| V (volt) | I (Ampere) | t (second) | R (Ohm) | W (Joule) | P (Watt) |
|---|---|---|---|---|---|
| 3 | 2 | 0.5 | | | |
| | 4 | 1 | 6 | | |
| 8 | 0.5 | | | 12 | |
| 4 | | 2 | 1 | | 16 |
| | 0.2 | 0.5 | | 4 | 8 |