

Term 2 Revision

12PHYS - Electricity

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2019

Revision

For both **cations** and **anions**:

1. What charge carrier is important here?
2. Has the atom gained or lost some of that charge carrier?
3. What is the overall charge of ion?

4. If Max rubs a balloon on his head and it gains a charge of $2.5C$, how many electrons has it lost?
5. What process is causing the balloon to lose electrons and Max to gain them?

$$E = \frac{V}{d}$$

$$\vec{F} = \vec{E}q$$

6. Draw a uniform electric field between two plates with a potential difference of $2,000V$ and distance of $25cm$.
7. An object with charge $-0.75C$ is placed in the field. Calculate the force that will be exerted on it by the electric field.

$$I = \frac{q}{t}$$

8. A current of $7A$ is flowing around a circuit. How many electrons are passing a point each second?
9. How many electrons pass the same point in one hour?
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$$P = IV$$

$$V = IR$$

10. What is the resistance of a $6V$ bulb with $3A$ passing through it?
11. What is the power of a $12V$ bulb with a resistance of 0.2Ω ?
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$$R_T = R_1 + R_2 + R_3 + \dots \qquad \frac{1}{R_t} = \frac{1}{R_1} + \frac{1}{R_2} + \dots$$

