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| **Title** | 1st homework in the Electric Circuit Theory class by 201923250 |

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**Summarization for sections from 1.1 to 1.4**

Both branches of electrical engineering are based on two basic theories: electric circuit theory and electromagnetic theory. Electric circuit theory underpins many branches of electrical engineering, including electricity, electric machines, control, electronics, communications, and instrumentation.

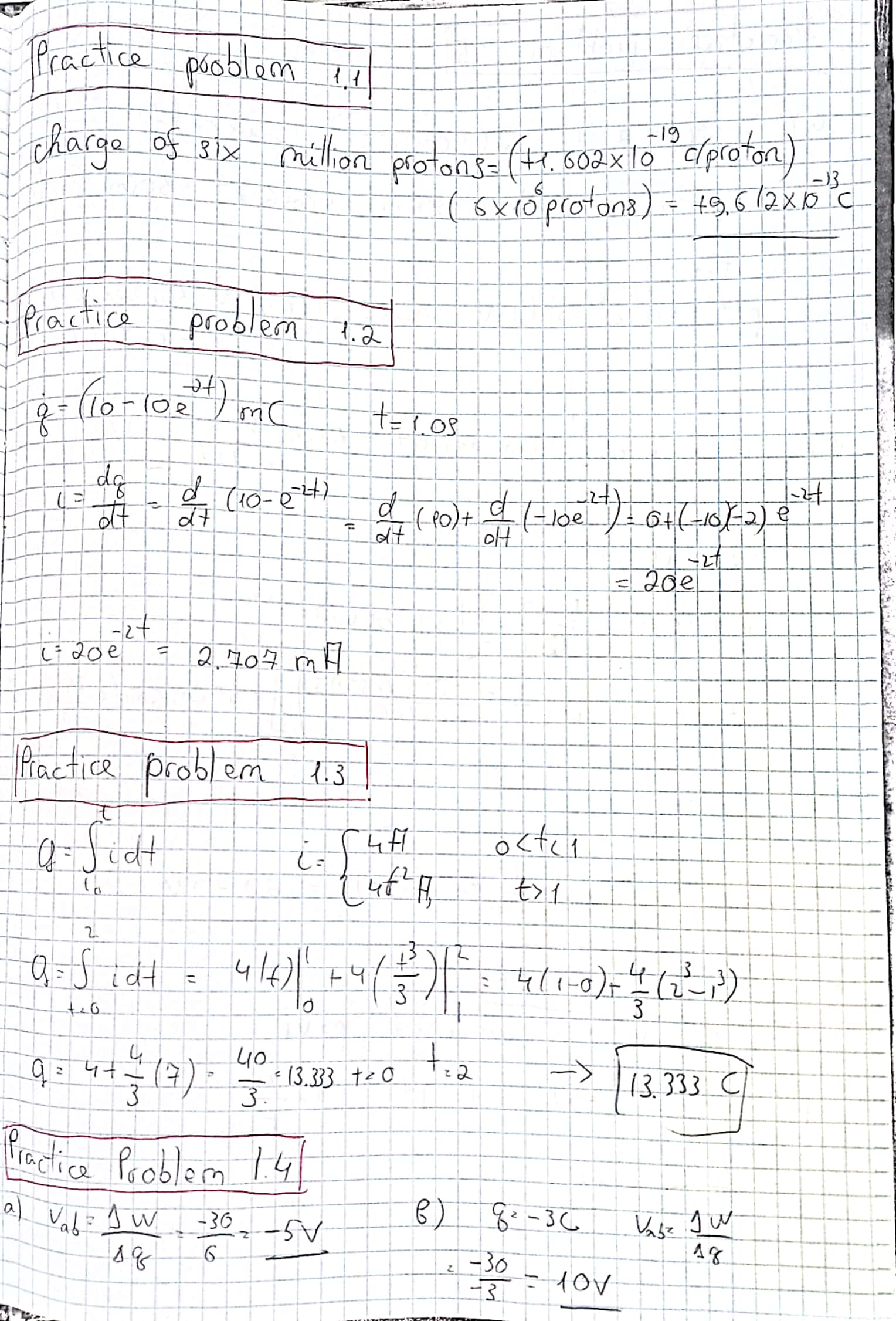
An electric circuit is a collection of electrical elements that are connected together.

The electric charge is also the most fundamental quantity in an electric circuit.

Charge, measured in coulombs, is an electrical property of the atomic particles that make up matter (C). Electric current is the rate at which a charge varies over time, measured in amperes (A).

A direct current (dc) is a current that does not change with the passage of time. A sinusoidally varying current is known as alternating current (ac).

**Practice problem solutions for sections from 1.1 to 1.4**

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