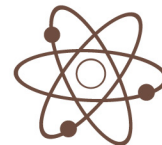
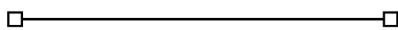


Name : _____ Date : _____

What is an Ion?

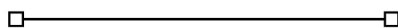


Answer the following questions related to ions.

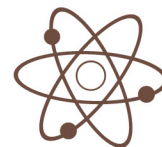
1. What is an ion?
2. How does an atom become an ion?
3. What is the charge of a cation?
4. What type of elements become cations?
5. What is the charge of an anion?
6. What type of elements become anions?
7. What does a Roman numeral tell you when it is written after an element?

Name : _____ Date : _____

What is an Ion?



Answers



1. What is an ion?

Ions are atoms (or molecules) that have an electrical charge.

2. How does an atom become an ion?

To become an ion, an atom (or a molecule) must go from a neutral state to a charged one. This occurs from the loss or gain of one (or sometimes multiple) electrons.

3. What is the charge of a cation?

Ions that possess a positive charge are called cations.

4. What type of elements become cations?

All metals will form cations under normal circumstances. There are some non-metals, like hydrogen, which will also usually form positive ions.

5. What is the charge of an anion?

Ions that possess a negative charge are called anions.

6. What type of elements become anions?

Anions are almost exclusively formed by non-metals.

7. What does a Roman numeral tell you when it is written after an element?

The use of Roman numerals when it comes to chemical nomenclature indicates the charge of the ion. This is especially useful for transition metals, which often have multiple ionic states. For instance, Cu(I) stands for Cu^+ , and Cu(II) stands for Cu^{2+} .