



Name:

Date:

Grade:

Worksheet

Q1) Choose the correct answer

A Sodium atom has atomic number $Z = 11$ and mass number $A = 23$

1. The number of electrons of sodium atom is

- a) 10 b) 12 c) 11

2. The number of Neutrons of Sodium atom is

- a) 11 b) 12 c) 23

3. The relative charge of nucleus of Sodium atom is

- a) + 12 b) +11 c) -11

4. The relative charge of electron cloud for Sodium atom is

- a) +12 b) +11 c) -11



5. The total charge of atom for sodium is

a) +1

b) zero

c) -1

Q3) Complete the table

Element	Q nucleus	Q electron cloud	Q atom
$_{17}^{35}\text{Cl}$	+17	.....	0
$_{13}^{23}\text{Al}$	.....	-13	0
$_{7}^{14}\text{N}$	+7	-7	.....
$_{5}^{11}\text{B}$	.....	-5	.....
$_{15}^{31}\text{P}$	.....	.....	.....



Q3) Consider the Magnesium atom has atomic number ($Z = 12$) and mass number ($A = 24$).

1. Determine the composition of Mg atom.
2. Determine nuclear charge of Mg atom.
3. Calculate the charge of electron cloud for Mg atom.
4. Deduce the charge of magnesium atom.
5. Magnesium loses 2 electrons to become magnesium ions.
 - a- Show that the charge of magnesium ion is +2.
 - b- Translate the above statement into an ionization equation.

Given:

Relative charge of 1 proton is +1

Relative charge of 1 electron is -1