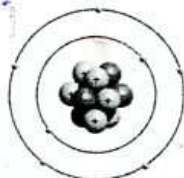


ANSWERS

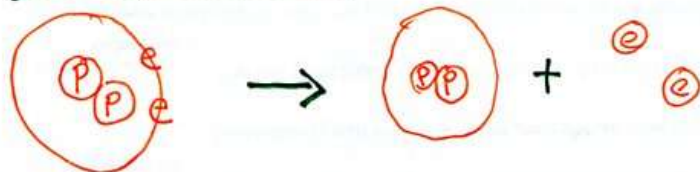


Homework:

1. If an atom has 12 protons and 10 neutrons, it has a mass of 22 and it is the element magnesium
2. If an atom has 1 proton and 0 neutrons, and 2 electrons, what is the highLow symbol of the atom? ${}^1_1\text{H}^-$
3. If an atom is helium how many protons does it have? two
4. If an atom has 10 protons what element is it? neon
5. If the atom's mass number is 18 how many nucleons does it have? 18
6. If an atom has 12 protons and it has 25 nucleons, how many neutrons does it have? 13
7. If an atom has 20 nucleons and has 9 neutrons, how many protons does it have? 11
8. If an atom has 1 proton and 0 neutrons what element is it? hydrogen
9. If an atom has 22 protons and 20 neutrons, and 20 electrons, write the highLow symbol with charge ${}^{42}_{22}\text{Ti}^{+2}$
10. If an atom has 8 proton and 11 neutrons what is the mass of the atom? 19
11. If an atom is magnesium how many protons does it have? 12
12. If an atom has 15 protons what element is it? P
13. If an atom mass number is 28 amu's and there are 12 neutrons, what element is it? SULFUR
14. If an atom has 6 protons and it has 10 nucleons, how many neutrons does it have? 4
15. If an atom has 1 nucleon and has zero neutrons, how many protons does it have? one
16. If an atom has 92 protons, 91 electrons, and 146 neutrons write the symbol, with highLow numbers and charge ${}^{238}_{92}\text{U}^+$

PURPOSE How Do WE WRITE IONIZATION?

example #1



"IONIZATION" IS THE
FORMING OF IONS

$$\text{CHARGE} = P - e$$

$$\text{CHARGE} = 2 - 2$$

$$\text{CHARGE} = \text{zero}$$

$$\text{CHARGE} = P - e$$

$$\text{CHARGE} = 2 - 0$$

$$\text{CHARGE} = +2$$

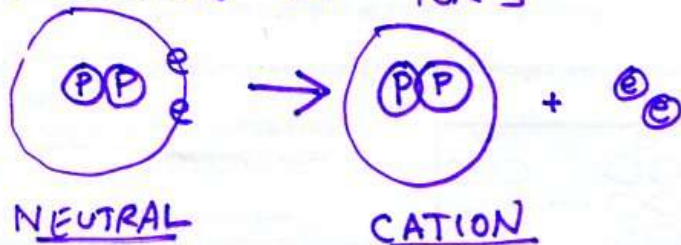
"NEUTRAL" IS THE TERM
FOR THINGS WITH A CHARGE
OF ZERO

IF AN ATOM IS NEUTRAL, THE
P AND e HAVE THE SAME
QUANTITY

Purpose HOW DO WE WRITE IONIZATION ?

#1

IONIZATION IS THE
FORMING OF IONS



$$\text{CHARGE} = (P) - (E)$$

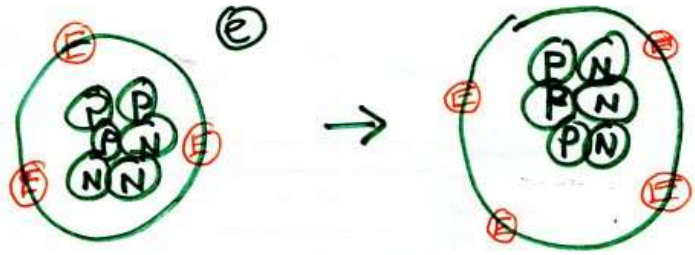
$$\text{CHARGE} = 2 - 2$$

$$\text{CHARGE} = \text{zero}$$

$$\text{CHARGE} = (2) - (0)$$

$$\text{CHARGE} = +2$$





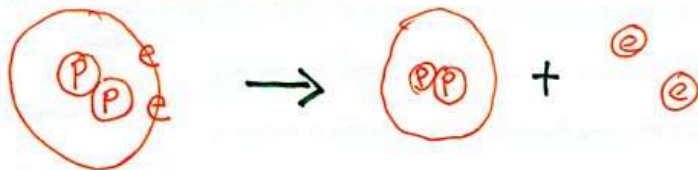
charge = $P - e$
 charge = $3 - 3$
 charge = zero
 (neutral)

charge = $P - e$
 charge = $3 - 4$
 charge = -1
 (negative)



PURPOSE How Do WE WRITE IONIZATION?

example #1



"IONIZATION" IS THE
FORMING OF IONS

$$\text{CHARGE} = P - e$$

$$\text{CHARGE} = 2 - 2$$

$$\text{CHARGE} = \text{zero}$$

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$$\text{CHARGE} = 2 - 0$$

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"NEUTRAL" IS THE TERM
FOR THINGS WITH A CHARGE
OF ZERO

IF AN ATOM IS NEUTRAL, THE
P AND e HAVE THE SAME
QUANTITY