Because P and N are found in the nucleus they are sometimes called nucleons

Inside the atom are nucleons

classwork

CλeMis+ry

Period

♡notes [save! mem orize by Friday!]:

#1 electrons – negative charge, almost no mass

#2 nucleons – have a mass of 1 Dalton

Ⓐ proton charge is +1

Ⓑ neutron charge is zero

	charge	mass
electron	−1	0 ($\frac{1}{2000}$)
neutron	0	1
proton	+1	1

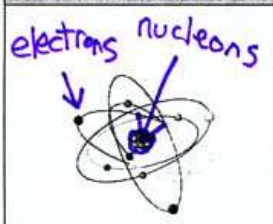
mass number charge

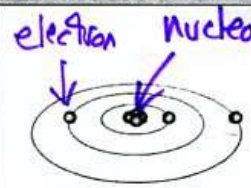
$^{4}_{2}He^{+2}$

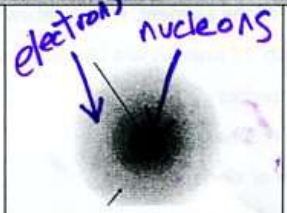
protons

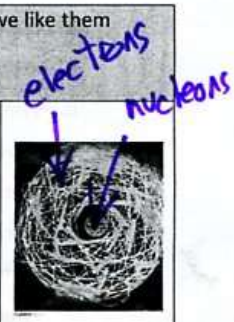
Each figure is a flawed attempt to show what a single atom looks like. None are correct. But we like them because they are easy ways to draw something that is undrawable.

Directions: Above each box, label the NUCLEONS and the ELECTRONS









Directions: At the bottom of the same boxes you just labeled, add labels telling where the NEUTRONS and PROTONS are.

If this atom has 8 protons and 7 neutrons it is the element OXYGEN.

Mass number 15 Daltons

Symbol of the element $^{15}_{8}O$

If this atom has 7 protons and 8 neutrons it is the element Nitro.

And it weighs 15 a.m.u.

Symbol of the element $^{15}_{7}N$

If this atom has 10 protons and 21 neutrons it is the element NEON.

And mass number 31 Daltons

Symbol of the element ~~$^{31}_{10}Ne$~~ calm down will ya. very different.

mass number rule:

mass number = P + N

unit is Daltons

was a.m.u.

charge rule:

charge = P − e

ATOMIC NUMBER = PROTONS

1. If an atom has 12 protons and 10 neutrons, how many nucleons does it have? 22
2. If an atom has 5 protons and 6 neutrons what is the mass of the atom? 11
3. If an atom is oxygen how many protons does it have? 8
4. If an atom has 4 protons what element is it? Be
5. If an atom weighs 12 amu's how many nucleons does it have? 12
6. If an atom has 2 protons and it has 5 nucleons, how many neutrons does it have? 3
7. If an atom has 40 nucleons and has 10 neutrons, how many protons does it have? 30
8. For an atom with atomic number =9, charge of zero, and 10 neutrons...
   a. mass number 19
   b. number of protons? 9
   c. number of electrons 9
   d. symbol of the element, with highLow numbers $^{19}_{9}F$
9. For an atom with 14 protons and 15 neutrons and 18 electrons
   a. mass number 29
   b. atomic number 14
   c. number of electrons 18*
   d. symbol of the element Si
   e. charge of the atom -4
   f. symbol of the element, with highLow numbers $^{29}_{14}Si^{-4}$

10. For a neutral atom with mass number of 47, 25 neutrons, and 22 electrons
    a. atomic number 22
    b. number of protons 22
    c. number of electrons 22
    d. symbol of the element, with highLow numbers $^{47}_{22}Ti$
11. For an atom with mass number 55, and has 25 protons and 23 electrons
    a. charge +2
    b. atomic number 25
    c. number of neutrons 30
    d. symbol of the element, with highLow numbers $^{55}_{25}Mn$