

60

Name: CALVIN
Date:
Hour:

Chem Ch.4 Quiz

1) Prepare a chart showing three subatomic particles, give the relative charge, relative mass, and location of each.

+1 each

Particle	Location	Relative mass	Relative charge
Proton	nucleus	1	+1
Neutron	nucleus	1	0
Electron	orbit	0	-1

2) Find the number of protons, neutrons, and electrons in the following:

+1 each

	Protons	Neutrons	Electrons
a) Lithium	3	4	3
b) Carbon	6	6	6
c) Mg	12	12	12
d) Ca	20	20	20
e) Phosphorus	15	16	15
f) Nickel	28	31	28
g) Oxygen	8	8	8
h) Calcium ~ 42	20	22	20
i) Ba ⁺²	56	81	54
j) F ⁻¹	9	10	10

3) Explain the difference between an ion and an isotope.

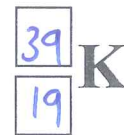
+1 each

Ion ~ different # of electrons

Isotope ~ different # of neutrons

+1 each

4) Provide symbol notation for Potassium:



5) Provide hyphen notation for Copper if it has 37 neutrons:

+1

Copper ~ 66

6) Create a drawing and use the drawing to explain Rutherford's gold foil experiment:

+4

Reas.

Circle the best answer

+1 each

7) (Millikin, Thomson, Rutherford) found that the atom was mostly empty space.

8) An element with a different number of electrons is an (ion, isotope).

9) An element with a different number of neutrons is an (ion, isotope).

10) (Protons, Neutrons, Electrons) can NOT change and still be the same element.

11) The elements on the periodic table are arranged by (atomic mass, atomic number).

Short Answer

12) Write FOUR sentences about the atom. (4 pts)

+4

Reas.

BONUS: Write ANY quote or word of the day from last week:

Reas.

Go Vikings!!