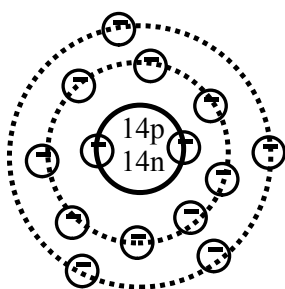


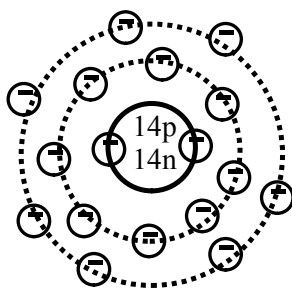
- 1) How many protons does a neutral Zinc Atom have? 30
- 2) What element has one less proton than Nickel Cobalt
- 3) What makes up the atomic mass of an atom protons + neutrons
- 4) What makes up the atomic number of an atom? protons
- 5) [REDACTED]
- 6) Draw a Bohr model of the atom for Silicon \_\_\_\_\_
- 7) Draw a Bohr model of the ion for Chlorine \_\_\_\_\_
- 8) Draw a Bohr model of the ion for Magnesium \_\_\_\_\_
- 9) How many neutrons does a neutral rubidium atom have  $(85-37) = 48$  neutrons
- 10) How many electrons does a neutral bromine atom have? 35
- 11) How many protons does a neutral strontium atom have? 38
- 12) How many electrons does a calcium ion have?  $\rightarrow \text{Ca}^{2+}$  has  $18e^{-}$
- 13) How many protons does a sulfur ion have?  $\text{S}^{2-} \rightarrow 18e^{-}$
- 14) How can an element have a negative charge? when it has more electrons than protons
- 15) How can an element have a positive charge? more protons than electrons
- 16) How can an atom have a neutral charge? protons = electrons
- 17) What ion does tellurium form?  $2^{-}$  (because it is in group 16)
- 18) What ion does cesium form?  $1^{+}$  (because it is in group 1)

See Bottom  
for 6,7,8

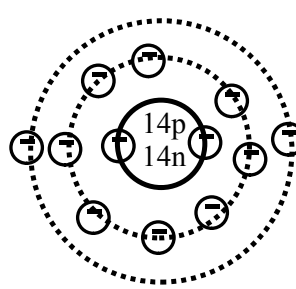
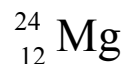
Silicon



Chlorine



Magnesium



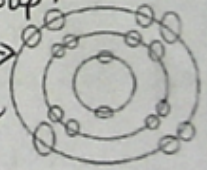
19) What ion does nitrogen form? Name this ion.  $N^{3-}$  (nitride)

20) What group of elements lose 2 electrons to become positive ions? alkali earth metals (group 2)

21) What group of elements gain 1 electron to become negative ions? Halogens (group 17)

22) The maximum number of electrons that the second orbital can contain is 8

23) Name 2 alkali metals lithium, sodium, potassium... group 1

24) The picture show the bohr diagram for which element? Chlorine → 

25) Where are metalloids found in the periodic table? Name Two. stair case

26) Where are non-metals found in the periodic table? Right

27) The electron energy level diagram of  $Rb^{+2}$  is most similiar to which nobel gas? Krypton

28) What is the net charge on the ion of an element located in Period 4 and Group 15?  $3-$

29) The cation with  $18e^-$  and a net charge of  $+4$  is represented by  $18e^- ; 22p^+$  → 22 protons = Titanium  
 ↓ positive ion has a  $4+$  charge

Element or Ion	Atomic Number	Atomic Mass	Protons	Neutrons	Electrons
Co <sup>3+</sup>	27	59	27	32	24
Na	11	23	11	12	11
Ru <sup>6+</sup>	44	101	44	57	38
Mg <sup>2+</sup>	12	24	12	12	10
As <sup>3-</sup>	33	75	33	<del>42</del>	36
As <sup>3-</sup>	33	77	33	44	36
Fr	87	223	87	136	87
I <sup>-</sup>	53	127	53	74	54
Cd <sup>2+</sup>	48	112	48	64	46
S <sup>2-</sup>	16	32	16	16	18
Rb	37	85	37	48	37
Sr <sup>+</sup>	38	88	38	50	37
Ga <sup>3+</sup>	31	70	31	49	28
Sn	50	119	50	69	50
Pb <sup>4+</sup>	82	207	82	110	78