Chemistry 100   Name:_____

Isotope	Symbol	Mass #, A	Atomic #, Z	# p^+	# e-	# n^0
		81	35			
	$_{38}Sr^{90}$					
				26		54

Calculate the number of protons, electrons and neutrons of an Se-80 atom that has a -2 charge.

p^+	
n^0	
e-	

How many subatomic particles does this ion have?

Draw the atomic diagrams showing all of the protons and neutrons in the nucleus and electrons in the correct shells for the following :

Br^{81}	Kr^{82}	Mn^{56}
◯	◯	◯

How many valence electrons in the following?

Draw the electron dot structures for the followin

H	
O^{2-}	
Xe	
I^{1-}	

silicon		Rb
O_2		
F_2		Kr
Ammonia NH_3		

1. How many grams of alcohol absorb 928 calories to change the temperature 15^0C? Specific heat of alcohol is .58 cal/g ^0C

                                                        Answer_____

2. What is the temperature change of 224 ml of water that absorbs 800 calories?

                                                        Answer_____

3. How many calories does it take to vaporize 1,234 grams of water at 100^0C?

                                                        Answer_____

Complete the following table.

Formula	Ionic or molecular	Salt, acid, base, or covalent?	# of total ions	Name
$H_2S\,O_4$				
RbCl				
CCl_4				
FeO				
				Copper (II) sulfate
				Silver nitrate
				Aluminum carbonate
KOH				Potassium hydroxide

Classify the following bonds as ionic, polar covalent or nonpolar covalent

	S-C
	Cl-H
	Cl-Cl
	Br-Br

How many grams of calcium are there in 1.34 moles of calcium?

How many moles are there in 112.0 grams of NaCl?

How many atoms of hydrogen are in 123 moles of hydrogen?

What is the formula and name for the compound that forms between the following elements?

Sodium and nitrogen   Formula_____ Name_____

Magnesium and sulfur   Formula_____ Name_____