CHM 1142   Exam 1

50pts 1)   Match the formula to the correct name,

a. dialuminum trisulfide	q. bromic acid
b. dipotassium oxide	r. ferric chloride
c. calcium dihydrogen phosphate	
d. hydrobromic acid	s. iron(II) chloride
e. silver nitrate	t. calcium phosphate
f. sodium nitrate	u. hydrobromous acid
g. sodium sulfite	v. bromic acid
h. sodium sulfate	
i. potassium trichloride	
j. lithium permanganate	
k. aluminum sulfide	
l. sodium sulfite	
m. potassium oxide	
n. boron trichloride	
o. potassium carbonate	
p. phosphorus trichloride	

PCl_3 _____

K_2O _____

$Ca(H_2PO_4)_2$ _____

Na_2SO_3 _____

BCl_3 _____

$AgNO_3$ _____

K_2CO_3 _____

Al_2S_3 _____

HBr _____

$FeCl_2$ _____

64 pts 2) Write the names or formula for the following compounds:

CaS_____   sodium bicarbonate_____

$SnBr_2$_____ Al_2O_3_____

AgOH_____ N_2O_4_____

KI_____   sulfur trioxide_____

$Al_2(CO_3)_3$_____ $HClO_3$_____

ClO_2_____   copper (I) bromite_____

200 points total

36pts 3)　Answer the following:

a) Circle the warmer temperature?

20^{0}C　　　　20K

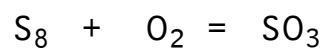b) How many neutrons are in an atom of Sr-90?

c) How many mL are in 0.667 L?

d) Circle the greater distance

0.100 m　　　　1000 mm

e) Balance the following equation:

S_8　+　O_2　=　SO_3

f) What prefix means "nine"?

g) Convert 2.2 x 10^{-3} to decimal notation?

h) Write the name and symbol of a halogen.

i) Circle the subatomic particle with the greater mass?

electron   neutron

15pts 4) How many significant figures are in the following?

10.08210_____ 0.0900000_____

1.00×10^{-7} _____ 1205000_____

1.022000×10^{-4}_____

10pts 5) Fill in the following table:

Symbol	# of protons	# of neutrons	# of electrons	charge
	11	12		0
K-		21		+1
Ar-40			18	
-27	13			+3

10pts 6)   What mass of a liquid with d=1.82 g/mL has a volume of 24 mL ?

10pts 7)   A snake is 3.2 feet long.

2.54 cm = 1 inch

a)   What is his length in mm?

5pts 8)   Assume that an element consists of two isotopes with masses of 90.00 amu and 120.00 amu. If the abundance of the 90.00 amu isotope is 80.00% and the abundance of the 120.00 amu isotope is 20.000%, what should appear in the periodic chart as the atomic weight of the element?