South Pasadena • AP Chemistry

Name _____
Period ___ Date ___/___/___

3 • Molecules and Compounds

Mole Calculations – 6 at a Time

1 mole = 6.02 x 10^{23} molecules = 22.4 L (@ STP) = gram molecular mass

I. Molar Masses

Calculate these molar masses. Look these over. You should have a visual memory of common compounds.

CO_2		CH_4		H_2O		C_2H_5OH	
Cl_2		CCl_4		SO_2		O_2	
H_2S		NaCl		He		HCl	

II. One Conversion-Factor Problems

1. G:
   D:

   _____ | _____ =

2. G:
   D:

   _____ | _____ =

3. G:
   D:

   _____ | _____ =

II. Two Conversion-Factor Problems

1. G:
   D:

   _____ | _____ | _____ =

2. G:
   D:

   _____ | _____ | _____ =

3. G:
   D:

   _____ | _____ | _____ =

1 mole = 6.02 x 10^{23} molecules = 22.4 L (@ STP)

IV. Miscellaneous Problems

These are problems that are RELATED to mole calculations, but have a twist. Read them carefully. "Think outside the box."

1.

2.

3.