NAME: **HONORS CHEMISTRY**

SECTION: Particle and Mole Conversions

State Avogadro's number:

The Mole Road:

 

Complete the following problems. Use factor label and show your work.

1. How many atoms are present in a 0.112 mol sample of rhenium?
2. Calculate the number of molecules present in a 5.3 mol sample of water, H2O.
3. How many moles are present in a sample containing 9.47 x 1023 atoms of neon?
4. A sample consists of 1.45 x 1022 molecules of benzene, C6H6. How many moles of benzene are present?
5. Calculate the number of carbon atoms present in a 0.57 mol sample of glucose, C6H12O6.

 

1. Calculate the mass of a sample of aluminum which contains 5.55 x 1023 atoms of aluminum.
2. A sample of helium gas has a mass of 14.7 g. How many atoms of helium are present in the sample?