3.29 – Dimensional Analysis (Moles, grams, & atoms) Review Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Complete the following mole conversion problems, SHOW ALL WORK and write answers with CORRECT UNITS and SIGNIFICANT FIGURES.

1. What is the mass of 0.256 mol of argon?
2. How many moles are in a 900 g sample of silicon?
3. The mass of a sample of manganese is 87.21g. How many atoms does it contain?
4. How many atoms are present in 34.2 mol of vanadium?
5. A sample of neon contains 2.15 x 1022 atoms. How many moles of neon are present?
6. A sample contains 3.85 x 1026 atoms of helium. How many grams of helium are present?
7. Convert 74.43 grams of Copper sulfate (CuSO4) to molecules of Copper Sulfate.