

Name _____ Pd _____ Date _____

Mole, Mass & Particle Conversion Worksheet

Show all your work, including correct units and sig figs.

1. What is the mass in grams of each of the following?
 - a. 1.50 mol Li
 - b. 2.45 mol Fe
 - c. 31 mol Al
 - d. 8.2 mol C
 - e. 1.10 mol Ca
2. How many moles of atoms or molecules are there in each of the following?
 - a. 6.022×10^{23} atoms of Ne
 - b. 3.25×10^5 g of Pb
 - c. 3.011×10^{23} molecules of H₂O
 - d. 4.50×10^3 g of H₂O
 - e. 125 g of CuNO₃
 - f. 8.25×10^{13} molecules of C₄H₁₀
 - g. 597.8 g of NO₂

h. 45 607 500 molecules of CO

i. 8.05 g of CF₄

j. 2.8×10^{27} atoms of Na

k. 421 kg of Pb₃(PO₄)₄

3. How many atoms are there in each of the following?

a. 1.50 mol Na

b. 7.02 g Si

c. 6.755 mol Pb

4. What is the mass in grams of each of the following?

a. 3.011×10^{23} atoms F

b. 25 atoms W

c. 1.50×10^{23} molecules MgO

d. 1 atom Au

e. 4.50×10^{12} molecules NaCl

f. 8.42×10^{18} atoms Br

5. Determine the number of atoms in each of the following:

a. 5.40 g B

b. 0.02550 g Pt

c. 0.250 mol SO₂

d. 1.00×10^{-10} g Au

e. 0.0384 mol KCl