CW #3 – Combined Mole Problems

Directions: Solve each problem. Use your Periodic Table and Mole Map if needed. **Show all your work and make sure your answers are in correct significant figures and have units for full credit!**

**Name:**

**Period: 2 3 4**

1. What is the mass, in grams, of 7.56 × 1022 molecules of IF7?
2. How many formula units of cobalt (III) bromide are in 250.0g?
3. What is the mass, in grams, of 3.69 × 1029 atoms of zirconium, Zr?
4. How many molecules of water are in 3.604g?
5. What is the mass, in grams of 1.313 × 1027 formula units of K2C2O4?
6. The plutonium used in the atomic bomb dropped on Nagasaki, Japan had a mass of 38.5kg. Approximately 20% of that plutonium actually underwent fission when the bomb exploded, or 7700.0 g. How many atoms are in 7700.0 g of plutonium?