1. How many grams of oxygen atoms are there in 7.09 x 1025 atoms?
2. How many micrograms of hydrogen gas are there in 2.33 x 1022 atoms?
3. How many nanograms of phosphorus are there in 8.9 x 1024 molecules of diphosphorous monoxide?
4. How many atoms of nitrogen are there in 20.1 g of dinitrogen trioxide?
5. How many molecules of iodine pentafluoride are there in 13 mg?
6. How many nitrate molecules are there in 7.5 g of magnesium nitrate?
7. The most sensitive balance in the world can mass 1.0 g. How many atoms are there in a speck of gold with a mass of 1.0 g?
8. If a moles worth of toonies was to be evenly distributed to each of the 7 billion people on the earth, how many dollars would each person have?
9. In WWI, 1.1x104 kg of poison gas were fired at Allied forces. If the gas is phosgene, COCl2, how many molecules of the gas were used?