

Name: _____

Block: _____

More Mole Conversion Problems

1. How many moles are 65.0 grams of zinc?
2. How many moles are 1250.5 g of lead (II) nitrate ($\text{Pb}(\text{NO}_3)_2$)?
3. How many moles are 2,500 g of tin (IV) chlorate ($\text{Sn}(\text{ClO}_3)_4$)?
4. How many moles are 125.0 g of silver nitrate (AgNO_3)?
5. How many nitrogen atoms are there in 62.5 g of dinitrogen pentoxide?
6. How many oxygen atoms are there in 380 g of copper (II) phosphate?
7. How many hydrogen atoms in 454 g of aluminum hydroxide?

8. What is the mass (in grams) of 2.35 mol of S_2N_3 ?
9. What is the mass (in grams) of 0.25 mol of silver acetate?
10. What is the mass (in grams) of a 2.00 kg bag of table sugar ($\text{C}_{12}\text{H}_{22}\text{O}_{12}$)?
11. How many moles are in 123.5 ℓ of oxygen gas at S.T.P.?
12. How many moles are in a 40-gallon drum of chlorine gas at S.T.P.? (1 gal = 3.78 ℓ)
13. What is the volume (in liters) of 3.5 moles of argon gas at 1.1 atm and 20°C? (Hint: this is *not* at S.T.P., so you need to use $PV = nRT$.)
14. What is the volume (in liters) of 4.90×10^{25} molecules of nitrogen gas at S.T.P.?