

Name _____

More Mole Conversions

- 1) Mercury has a density of 13.6g/mL. How many atoms of Hg are in a 25.0mL sample?
- 2) How many liters are occupied by 0.0860 moles of neon gas at STP?
- 3) What is the volume at STP of a sample that contains 246.2g of oxygen gas?
- 4) How many grams of copper are present in a sample containing 1.28×10^{25} atoms?
- 5) How many total atoms are present in a 3.00g sample of NaOH?
- 6) What is the density of CO₂ at STP in g/L? (Assume 1 mole)
- 7) How many atoms are contained in a 400g sample of sulfur dioxide?
- 8) What would the height of an iron cylinder be if you have 9.59×10^{25} atoms and the cylinder's radius is 6.0cm? $D_{\text{Fe}} = 7.87\text{g/mL}$ $V = \pi r^2 h$
- 9) There are 2.54×10^{21} atoms in a crystal of ammonium sulfate. What is the mass of that crystal?
- 10) There are 1.28×10^{20} atoms of oxygen in a sample of CO₂. How many grams of CO₂ do you have?
- 11) How many oxygen atoms are in a 10.0g sample of aluminum phosphate?
- 12) How many phosphorus atoms are in a 10.0g sample of aluminum phosphate?
- 13) How many fluorine atoms are present in a 4.0L sample of carbon tetrafluoride gas at STP?