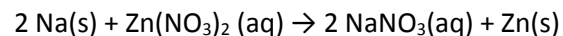


Pre-AP Chemistry
Unit #9—Stoichiometry

Mass to Atoms/Molecules and Atoms/Molecules to Mass



1. Calculate the molar mass for zinc nitrate and sodium nitrate in the reaction.
2. How many grams of sodium are needed to react completely with 6.313×10^{24} molecules of zinc nitrate?
3. If 15.88 grams of Zn are produced in the above reaction, how many atoms of sodium were reacted?
4. How many grams of sodium nitrate are produced if the reaction calls for 1.915×10^{25} atoms of solid sodium?
5. If 75 grams of zinc nitrate are needed in the above reaction, how many atoms of zinc metal were produced?