

Summer Review Sheet #4

Balancing Equations and Simple Stoichiometry

Answers are provided on the second sheet. Please try to do the worksheet without referring to them, because you'll be expected to know this stuff the first day of school!

Balance the following equations:

- 1) $\text{___ N}_2 + \text{___ F}_2 \rightarrow \text{___ NF}_3$
- 2) $\text{___ C}_6\text{H}_{10} + \text{___ O}_2 \rightarrow \text{___ CO}_2 + \text{___ H}_2\text{O}$
- 3) $\text{___ HBr} + \text{___ KHCO}_3 \rightarrow \text{___ H}_2\text{O} + \text{___ KBr} + \text{___ CO}_2$
- 4) $\text{___ GaBr}_3 + \text{___ Na}_2\text{SO}_3 \rightarrow \text{___ Ga}_2(\text{SO}_3)_3 + \text{___ NaBr}$
- 5) $\text{___ SnO} + \text{___ NF}_3 \rightarrow \text{___ SnF}_2 + \text{___ N}_2\text{O}_3$

Using the equation from problem 2 above, answer the following questions:

- 6) If I do this reaction with 35 grams of C_6H_{10} and 45 grams of oxygen, how many grams of carbon dioxide will be formed?

- 7) What is the limiting reagent for problem 6? _____
- 8) How much of the excess reagent is left over after the reaction from problem 6 is finished?

- 9) If 35 grams of carbon dioxide are actually formed from the reaction in problem 6, what is the percent yield of this reaction?