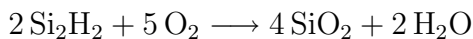


Name: _____

Block: _____

Stoichiometry #3: Limiting Reactant

1. Consider the reaction:



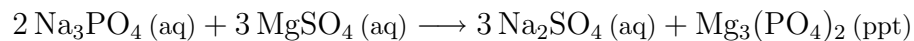
- (a) If you had 8 mol Si_2H_2 , how many moles of SiO_2 could you make?
- (b) If you had 15 mol O_2 , how many moles SiO_2 could you make?
- (c) If you had *both* 8 mol Si_2H_2 *and* 15 mol O_2 , How much SiO_2 could you make? Which reactant would you run out of?
- (d) How many moles of the non-limiting reactant would be left over?

2. Consider the reaction:

If you had 6 mol Ca and 8 mol AlCl_3 , how many moles of solid aluminum would you recover?

How many moles of the non-limiting reactant would be left over?

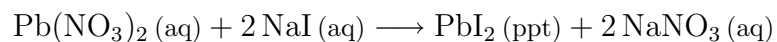
3. Consider the reaction:



If you had 1.5 mol MgSO_4 and 0.75 mol Na_3PO_4 , how many moles of precipitate would you recover?

How many moles of the non-limiting reactant would be left over?

4. Consider the reaction:



If you had 290. g of $\text{Pb}(\text{NO}_3)_2$ (F.W. $331.2 \frac{\text{g}}{\text{mol}}$) and 202 g of NaI (F.W. $149.9 \frac{\text{g}}{\text{mol}}$), how many *grams* of PbI_2 (F.W. $461.0 \frac{\text{g}}{\text{mol}}$) would you make?