

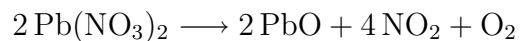
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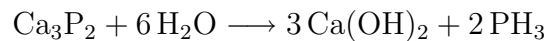
Stoichiometry #1

In the following balanced chemical equations, tell how much of each reactant is consumed and how much of each product is made.

1. 4 mol of $\text{Pb}(\text{NO}_3)_2$ decomposes in the reaction:



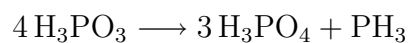
2. 1.33 mol of Ca_3P_2 reacts with excess water in the double displacement reaction:



3. 1.5 mol Ca reacts with excess AlCl_3 in the single displacement reaction:



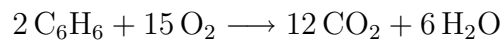
4. 1 mol H_3PO_3 decomposes in the reaction:



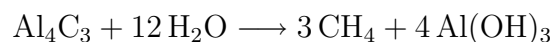
For each of the following balanced chemical equations, tell:

- which reagent is limiting
- how much of the non-limiting reagent is used and how much is left over
- how much of each product is made

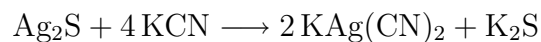
5. 4 mol C₆H₆ reacts with 25 mol O₂ in the combustion reaction:



6. 0.5 mol Al₄C₃ reacts with 7.5 mol H₂O in the double displacement reaction:



7. 2 mol Ag₂S reacts with 2 mol KCN in the double displacement reaction:



In the following equation, tell how many *grams* of each product are made. (Convert grams of reactant to moles, calculate the moles of product according to the stoichiometry of the reaction, and then convert moles of product back to grams.)

8. 100 g of MgNH₄PO₄ decomposes in the reaction:

