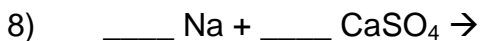
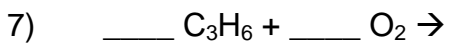
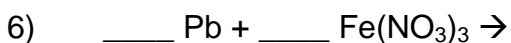
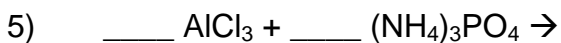
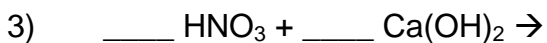
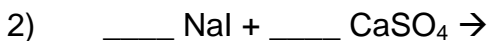
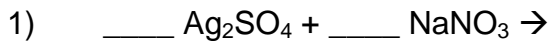


Fun With Predicting Reaction Products

Predict the products of each of the following chemical reactions. If a reaction will not occur, explain why not:



Fun With Predicting Reaction Products

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Before moving on, here are some general rules of thumb for how to figure out what will be made (and if the reaction will occur at all):

- 1) If something that has carbon and hydrogen reacts with oxygen, it's probably a combustion reaction. The products will be CO_2 and H_2O .**
- 2) If two elements or very simple molecules combine with each other, it's probably a synthesis reaction. The products will probably be predictable using the octet rule to find charges.**
- 3) If one compound has an arrow coming off of it, it's probably a decomposition reaction. The products will either be a couple of very simple molecules, or some elements, or both.**
- 4) If a pure element reacts with another compound (usually, but not always, ionic), it's probably a single displacement reaction. The products will be the compounds formed when the pure element switches places with another element in the other compound.**
 - Important note: these reactions will only occur if the pure element on the reactant side of the equation is higher on the activity series than the element it replaces.
- 5) If two ionic compounds combine, it's probably a double displacement reaction. Switch the cations and balance out the charges to figure out what will be made.**
 - Important note: These reactions will only occur if both reactants are soluble in water and only one product is soluble in water.
- 6) If an acid and a base combine, it's an acid-base reaction. The products will be an ionic compound and water.**