

### Worksheet #5: Double-Replacement Reactions

In these reactions, all you do is look at the names of the reactants, and "switch partners". Just be sure that the new pairs come out with the positive ion named first, and paired with a negative ion.

1. aluminum iodide + mercury(II) chloride →
2. silver nitrate + potassium phosphate →
3. copper(II) bromide + aluminum chloride →
4. calcium acetate + sodium carbonate →
5. ammonium chloride + mercury(I) acetate →
6. calcium nitrate + hydrochloric acid →
7. iron(II) sulfide + hydrochloric acid →
8. copper(II) hydroxide + acetic acid →
9. calcium hydroxide + phosphoric acid →
10. calcium bromide + potassium hydroxide →

Examine the products of the reactions on this page, and determine in each whether a gas, water, or a precipitate is formed. Use solubility Table B.9 on page R54 at the back of your textbook to determine the solubilities of the reaction products. If there is no gas, water, or precipitate produced, put an "X" through the yield sign, because no reaction occurs.

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1. aluminum iodide + mercury(II) chloride  $\rightarrow$  aluminum chloride + mercury(II) iodide



2. silver nitrate + potassium phosphate  $\rightarrow$  silver phosphate + potassium nitrate



3. copper(II) bromide + aluminum chloride  $\rightarrow$  copper(II) chloride + aluminum bromide



4. calcium acetate + sodium carbonate  $\rightarrow$  calcium carbonate + sodium acetate



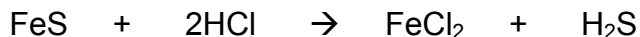
5. ammonium chloride + mercury(I) acetate  $\rightarrow$  ammonium acetate + mercury(I) chloride



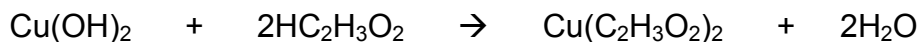
6. calcium nitrate + hydrochloric acid  $\rightarrow$  calcium chloride + nitric acid



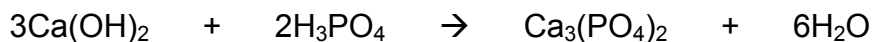
7. iron(II) sulfide + hydrochloric acid  $\rightarrow$  iron(II) chloride + hydrogen sulfide (g)



8. copper(II) hydroxide + acetic acid  $\rightarrow$  copper(II) acetate + water



9. calcium hydroxide + phosphoric acid  $\rightarrow$  calcium phosphate + water



10. calcium bromide + potassium hydroxide  $\rightarrow$  calcium hydroxide + potassium bromide



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