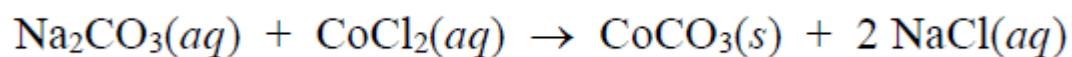
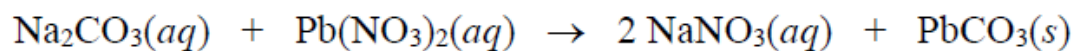
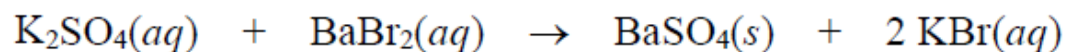
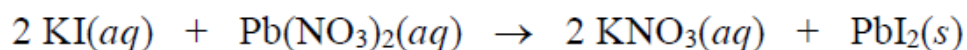
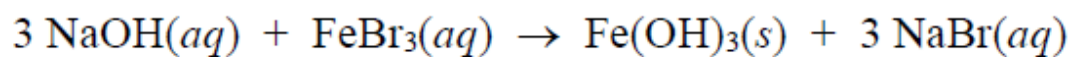
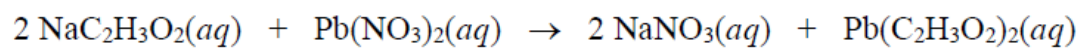
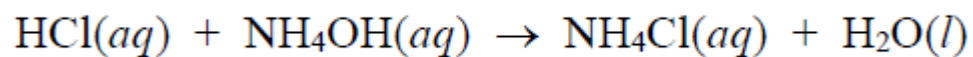


### Common rules for solubility of salts

Ions	Solubility of salts	Solubility Exceptions
sodium (Na), potassium (K) and ammonium (NH <sub>4</sub> <sup>+</sup> )	all soluble	none
nitrates (NO <sub>3</sub> <sup>-</sup> )	all soluble	none
chlorides (Cl <sup>-</sup> ) and iodides (I <sup>-</sup> )	most soluble	silver (Ag <sup>+</sup> ), lead (Pb <sup>2+</sup> ), mercury (Hg <sub>2</sub> <sup>2+</sup> )
sulfates (SO <sub>4</sub> <sup>2-</sup> )	most soluble	Ag <sup>+</sup> , Pb <sup>2+</sup> , calcium Ca <sup>2+</sup> , strontium (Sr <sup>2+</sup> ) and barium (Ba <sup>2+</sup> )
carbonates (CO <sub>3</sub> <sup>2-</sup> )	most insoluble	Group 1A, NH <sub>4</sub> <sup>+</sup> soluble
hydroxide (OH <sup>-</sup> )	most insoluble	Group 1A, NH <sub>4</sub> <sup>+</sup> soluble

### Practice:





**Write down the ionic equations of the following reactions:**

1. Zn with sulfuric acid

2. Copper (II) oxide with hydrochloric acid

3. Sodium with water

4. Sodium oxide with water

5. Calcium carbonate with sulfuric acid