Balance each of these single replacement equations.

1. \( \text{Cu} + 2 \text{AgNO}_3 \rightarrow \text{Cu(NO}_3)_2 + 2 \text{Ag} \)

2. \( 2 \text{Li} + \text{MgCO}_3 \rightarrow \text{Li}_2\text{CO}_3 + \text{Mg} \)

3. \( 2 \text{K} + 2 \text{H}_2\text{O} \rightarrow 2 \text{KOH} + \text{H}_2 \)

4. \( \text{Ba} + 2 \text{HgIO}_3 \rightarrow \text{Ba(IO}_3)_2 + 2 \text{Hg} \)

5. \( 2 \text{Cr} + 3 \text{Fe(OH)}_2 \rightarrow 2 \text{Cr(OH)}_3 + 3 \text{Fe} \)

Write a complete, balanced chemical equation for each single replacement reaction. Include subscripts as needed. Don’t forget about the diatomic elements!

6. Hydrochloric acid (Hydrogen chloride) is mixed with solid magnesium.
   \[ 2 \text{HCl} + \text{Mg} \rightarrow \text{MgCl}_2 + \text{H}_2 \]

7. Gold metal is placed inside a test tube with phosphoric acid (hydrogen phosphate).
   \[ 6 \text{Au} + 2 \text{H}_3\text{PO}_4 \rightarrow 2\text{Au}_3\text{PO}_4 + 3 \text{H}_2 \]

8. Solid tin is mixed into a solution of lithium sulfate.
   \[ \text{Sn} + \text{Li}_2\text{SO}_4 \rightarrow \text{SnSO}_4 + 2 \text{Li} \]

9. Potassium metal is added to a solution of manganese (II) oxide.
   \[ 2 \text{K} + \text{MnO} \rightarrow \text{K}_2\text{O} + \text{Mn} \]

10. Sodium is mixed with a solution of cobalt (III) nitrate.
    \[ 3 \text{Na} + \text{Co(NO}_3)_3 \rightarrow 3\text{NaNO}_3 + \text{Co} \]

11. A chlorine gas is run through a solution of sodium bromide.
    \[ \text{Cl}_2 + 2 \text{NaBr} \rightarrow 2\text{NaCl} + \text{Br}_2 \]

12. A solution of zinc peroxide is added to copper.
    \[ \text{ZnO}_2 + 2 \text{Cu} \rightarrow \text{Cu}_2\text{O}_2 + \text{Zn} \]

13. Lead (II) metal is added to sulfuric acid (hydrogen sulphate).
    \[ \text{Pb} + \text{H}_2\text{SO}_4 \rightarrow \text{PbSO}_4 + \text{H}_2 \]

14. A piece of iodine is dropped into a solution of calcium nitride.
    \[ 3 \text{I}_2 + \text{Ca}_3\text{N}_2 \rightarrow 3\text{CaI}_2 + \text{N}_2 \]

15. A solution of aluminum phosphide is dripped on a sold piece of calcium.
    \[ \text{Al}_2\text{P}_3 + 3 \text{Ca} \rightarrow 3\text{CaP} + 2 \text{Al} \]