

- 1) Please balance the following chemical equations and also identify the chemical reaction type.
- 1) $HgO \rightarrow Hg + O_2$

Example answer:

Balancing the equation: $2HgO \rightarrow 2Hg + O_2$ Reaction type: Decomposition reaction

2) $N_2O_5 + H_2O \rightarrow HNO_3$

Balancing the equation:

Reaction type:

3) $MgCO_3 \rightarrow MgO + CO_2$

Balancing the equation:

Reaction type:

4) Al + FeO \rightarrow Al₂O₃+ Fe

Balancing the equation:

Reaction type:

5) $Ca(OH)_2 + H_2SO_4 \rightarrow CaSO_4 + H_2O$

Balancing the equation:

Reaction type:

6) KI + Pb(NO₃)₂ \rightarrow KNO₃+ PbI₂

Balancing the equation:

Reaction type:

7) $K_2O + H_2O \rightarrow KOH$

Balancing the equation:

Reaction type:

8) $MgNH_4PO_4 \rightarrow Mg_2P_2O_7 + NH_3 + H_2O_1$

Balancing the equation:

Reaction type:

9)
$$H_2 + NO \rightarrow H_2O + N_2$$

Balancing the equation:

Reaction type:

10)
$$SiO_2 + HF \rightarrow SiF_4 + H_2O$$

Balancing the equation:

Reaction type:

2. Please balance the following combustion reactions:

1)
$$C_7H_6O_2 + O_2 \rightarrow CO_2 + H_2O$$

2)
$$C_8H_{18} + O_2 \rightarrow CO_2 + H_2O$$

3)
$$CH_3OH + O_2 \rightarrow CO_2 + H_2O$$

4)
$$C_7H_{16} + O_2 \rightarrow CO_2 + H_2O$$

5)
$$C_2H_2 + O_2 \rightarrow CO_2 + H_2O$$