Balancing Chemical Equations :

Answer key

Balance each of the chemical reactions.

1. $2\ NaNO_3 + \_\_\ PbO \rightarrow \_\_\ Pb(NO_3)_2 + \_\_\ Na_2O$
2. $6\ AgI + \_\_\ Fe_2(CO_3)_3 \rightarrow 2\ FeI_3 + 3\ Ag_2CO_3$
3. $\_\_\ C_2H_4O_2 + 2\ O_2 \rightarrow 2\ CO_2 + 2\ H_2O$
4. $\_\_\ ZnSO_4 + \_\_\ Li_2CO_3 \rightarrow \_\_\ ZnCO_3 + \_\_\ Li_2SO_4$
5. $\_\_\ V_2O_5 + 5\ CaS \rightarrow 5\ CaO + \_\_\ V_2S_5$
6. $\_\_\ Mn(NO_2)_2 + \_\_\ BeCl_2 \rightarrow \_\_\ Be(NO_2)_2 + \_\_\ MnCl_2$
7. $3\ AgBr + \_\_\ GaPO_4 \rightarrow \_\_\ Ag_3PO_4 + \_\_\ GaBr_3$
8. $3\ H_2SO_4 + 2\ B(OH)_3 \rightarrow \_\ B_2(SO_4)_3 + 6\ H_2O$
9. $\_\_\ S_8 + 8\ O_2 \rightarrow 8\ SO_2$
10. $\_\_\ Fe + 2\ AgNO_3 \rightarrow \_\_\ Fe(NO_3)_2 + 2\ Ag$

First write the correct chemical formulas for each of the reactions, then balance them.

11. ____sodium bicarbonate + ____hydrogen sulfate → ____sodium sulfate + ____water + ____carbon dioxide

$2\ NaHCO_3 + H_2SO_4 \rightarrow Na_2SO_4 + 2\ H_2O + 2\ CO_2$

12. ____Sodium carbonate + _____silver nitrate → _____sodium nitrate + ____silver carbonate

$Na_2CO_3 + 2\ AgNO_3 \rightarrow 2\ NaNO_3 + Ag_2CO_3$

13. ____Calcium + ____oxygen → _____calcium oxide

$2\ Ca + O_2 \rightarrow 2\ CaO$

14. ____Zinc + _____iron(III)oxide → ____zinc oxide + ____iron

$3\ Zn + Fe_2O_3 \rightarrow 3\ ZnO + 2\ Fe$

15. ____Magnesium bromide + ____chlorine → _____magnesium chloride + ____bromine

$MgBr_2 + Cl_2 \rightarrow MgCl_2 + Br_2$