Balancing Chemical Equations Worksheet

Choose the correct balanced equation from the given options.

Which of the following is the correctly balanced equation for the reaction between hydrogen and oxygen to form water?

a) $H_2 + O_2 \rightarrow H_2O$

b) $2H_2 + O_2 \rightarrow 2H_2O$

c) $H_2 + 2O_2 \rightarrow 2H_2O$

d) $2H_2 + 2O_2 \rightarrow 2H_2O$

Identify the correctly balanced equation for the combustion of methane (CH_4).

a) $CH_4 + O_2 \rightarrow CO_2 + H_2O$

b) $CH_4 + 2O_2 \rightarrow CO_2 + 2H_2O$

c) $2CH_4 + O_2 \rightarrow CO_2 + 2H_2O$

d) $CH_4 + 3O_2 \rightarrow 2CO_2 + 2H_2O$

Which of the following equations is correctly balanced for the decomposition of calcium carbonate?

a) $CaCO_3 \rightarrow CaO + CO_2$

b) $2CaCO_3 \rightarrow CaO + 2CO_2$

c) $CaCO_3 \rightarrow Ca + C + O_2$

d) $CaCO_3 \rightarrow CaO + O_2$