Combustion Reaction Equations

1. Balance each equation for a combustion reaction.

(a) C2H6  + O2 → CO2  + H2O

(b) C3H8  + O2 → CO2  + H2O

(c) C6H14  + O2 → CO2  + H2O

(d) C8H18  + O2 → CO2 + H2O

(e) C2H2  + O2 → CO2  + H2O

(f) C2H4  + O2 → CO2 + H2O

(g) C2H6  + O2 → CO2 + H2O

(h) C6H12O6  + O2 → CO2 + H2O

(i) CH4  + O2 → CO2 + H2O

(j) C2H5OH + O2 → CO2 + H2O

2. Write a balanced chemical equation to represent each reaction described below.

(a) Candle wax, C25H52, is burned to produce carbon dioxide and water.

(b) Sucrose, C12H22O11, is burned to produce carbon dioxide and water.

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1. (a) 2C2H6 + 7O2 → 4CO2 + 6H2O

(b) C3H8 + 5O2 → 3CO2 + 4H2O

(c) 2C6H14 + 19O2 → 12CO2 + 14H2O

(d) 2C8H18 + 25O2 → 16CO2 +18H2O

(e) 2C2H2 + 3O2 → 2CO2 + 2H2O

(f) C2H4 + 3O2 → 2CO2 + 2H2O

(g) 2C2H6 + 7O2 → 4CO2 + 6H2O

(h) C6H12O6 + 6O2 → 6CO2 + 6H2O

(i) CH4 + 2O2 → CO2 + 2H2O

(j) C2H5OH + 3O2 → 2CO2 + 3H2O

2. (a) C25H52 + 38O2 → 25CO2 + 26H2O

(b) 2C12H22O11 + 24O2 → 24CO2 + 22H2O