1. Isopropyl alcohol, sold as rubbing alcohol, is composed of C, H, and O. Combustion of 0.255 g of isopropyl alcohol produces 0.561 g of CO2 and 0.306 g of H2O. Determine the empirical formula of isopropyl alcohol.

**Calculating the Amount of Product Formed from a Limiting Reactant**

The reaction

2 H2(*g*) + O2(*g*) → 2 H2O(*g*)

is used to produce electricity in a hydrogen fuel cell. Suppose a fuel cell contains 150 g of H2(*g*) and 1500 g
of O2(*g*) (each measured to two significant figures). How many grams of water can form?