Problem 1.1

Problem Purpose
This problem will help you determine whether you have mastered the learning objectives for this unit.

Problem Statement
Cellulosic biomass is a renewable resource that could be used for the production of fuels and chemicals. Suppose that the nominal chemical formula for cellulose is $\text{C}_6\text{H}_{10}\text{O}_5$ and write a balanced chemical reaction for the steam gasification of cellulose to produce carbon monoxide and hydrogen ($\text{H}_2$). List the values of the four stoichiometric coefficients that appear in the reaction.