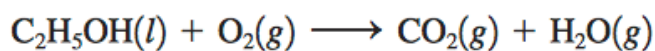
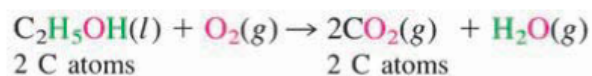


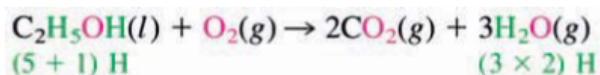
Balance the chemical reaction of the combustion of ethanol with oxygen:



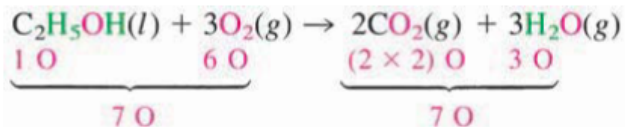
which can be represented by the following molecular models:



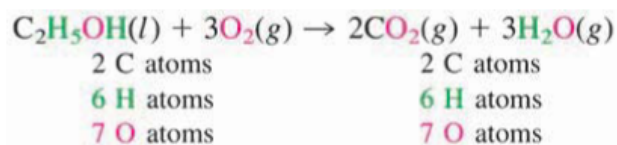
Since $\text{C}_2\text{H}_5\text{OH}$ contains six hydrogen atoms, the hydrogen atoms can be balanced by placing a 3 before the H_2O :



Last, we balance the oxygen atoms. Note that the right side of the preceding equation contains seven oxygen atoms, whereas the left side has only three. We can correct this by putting a 3 before the O_2 to produce the balanced equation:



Now we check:



The equation is balanced.

The balanced equation can be represented as follows:

