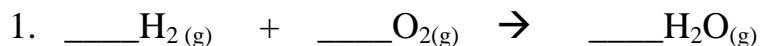


# Balancing Problem Set #1

Count the total number of each kind of “reactant atom” and total number of each type of “product atom” to balance the following equations. Record the numbers in the spaces provided.



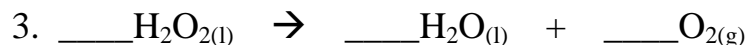
Rocket fuel is burned in a shuttle main engine.

Reactants		Products	
Element	#	Element	#
H		H	
O		O	



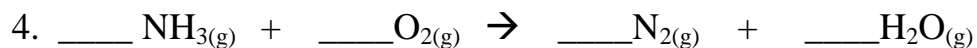
Natural gas is burned in a gas furnace in many homes.

Reactants		Products	
Element	#	Element	#
C		C	
H		H	
O		O	



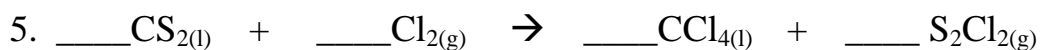
Hydrogen peroxide decomposes when put on a cut.

Reactants		Products	
Element	#	Element	#
H		H	
O		O	



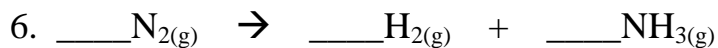
Ammonia will burn slowly in pure oxygen.

Reactants		Products	
Element	#	Element	#
N		N	
H		H	
O		O	



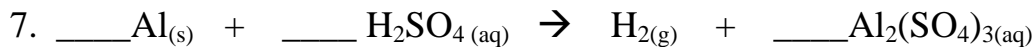
How carbon tetrachloride (banned cleaning fluid) used to be made.

Reactants		Products	
Element	#	Element	#
C		C	
S		S	
Cl		Cl	



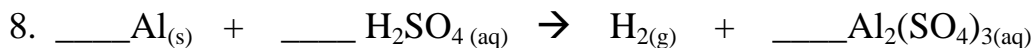
How ammonia is made.

Reactants		Products	
Element	#	Element	#
N		N	
H		H	



Aluminum should never be used to hold acid !!!

Reactants		Products	
Element	#	Element	#
Al		Al	
H		H	
S		S	
O		O	



Note: If the complex ion does not break up then balance the number of complex ions on each side of the chemical equation.

Reactants		Products	
Element	#	Element	#
Al		Al	
H		H	
SO <sub>4</sub>		SO <sub>4</sub>	

## Problem Set #2

