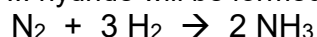


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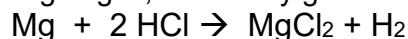
Honors Balancing Reactions

A) For each of the following determine the missing mass for each reaction.

1) If 15.0 grams of nitrogen are reacted with 3.2 grams of hydrogen gas to form nitrogen III hydride, how many grams of nitrogen III hydride will be formed?



2) If 37.0 grams of magnesium react with hydrogen chloride to form 77.2 grams of magnesium chloride and 1.1 grams of hydrogen gas, how many grams of hydrogen chloride were reacted?



B) Balance the following equations/reactions by placing small whole-number coefficients in front of the formulas, and determine the sum of the coefficients.

Reaction: Fill in the coefficients	Sum of Coefficients
___ C(s) + ___ H ₂ (g) → ___ CH ₄ (g)	
___ Fe(s) + ___ O ₂ (g) → ___ Fe ₂ O ₃ (s)	
___ NaI(s) → ___ Na(s) + ___ I ₂ (s)	
___ C ₆ H ₁₂ O ₆ (s) → ___ C(s) + ___ H ₂ O(l)	
___ Na ₂ CO ₃ (aq) + ___ HCl(aq) → ___ NaCl(aq) + ___ H ₂ O(l) + ___ CO ₂ (g)	
___ H ₂ (g) + ___ Cl ₂ (g) → ___ HCl(g)	
___ CH ₄ (g) + ___ O ₂ (g) → ___ CO ₂ (g) + ___ H ₂ O(l)	
___ N ₂ (g) + ___ H ₂ (g) → ___ NH ₃ (g)	
___ Al ₂ O ₃ (s) → ___ Al(s) + ___ O ₂ (g)	
___ CuO(s) + ___ C(s) → ___ Cu(s) + ___ CO ₂ (g)	
___ Ca(OH) ₂ (aq) + ___ HCl(aq) → ___ CaCl ₂ (aq) + ___ H ₂ O(l)	
___ K(s) + ___ B ₂ O ₃ (s) → ___ K ₂ O(s) + ___ B(s)	
___ C ₃ H ₈ (g) + ___ O ₂ (g) → ___ CO ₂ (g) + ___ H ₂ O(g)	
___ FeS(s) + ___ O ₂ (g) → ___ Fe ₂ O ₃ (s) + ___ SO ₂ (s)	

