Interpret the following balanced equations in terms of moles, mass, and representative particles.

Show that the law of conservation of mass is observed for each reaction.

(Use: C = 12, O = 16, H = 1, N = 14, Mg = 24.3, Cl = 35.5, K = 39.1)

1. $N_2(g) + 3H_2(g) \rightarrow 2NH_3(g)$

	$N_2(g)$	+	$3H_2(g)$	→	$2NH_3(g)$
In terms of representative particles	_____ molecule(s) of N2	+	_____ molecule(s) of H2	→	_____ molecule(s) of NH3
In terms of moles	_____ mol of N2	+	_____ mol of H2	→	_____ mol of NH3
In terms of mass	_____ g of N2	+	_____ g of H2	→	_____ g of NH3
Law of Conservation of Mass	_____ g Mass of Reactants				_____ g Mass of Products
	Mass is **conserved** / **not conserved**				

2. $HCl(aq) + KOH(aq) \rightarrow KCl(aq) + H_2O(l)$

	HCl(aq)	+	KOH(aq)	→	KCl(aq)	+	$H_2O(l)$
In terms of representative particles	_____ molecule(s) of HCl	+	_____ molecule(s) of KOH	→	_____ molecule(s) of KCl	+	_____ molecule(s) of H2O
In terms of moles	_____ mol of HCl	+	_____ mol of KOH	→	_____ mol of KCl	+	_____ mol of H2O
In terms of mass	_____ g of HCl	+	_____ g of KOH	→	_____ g of KCl	+	_____ g of H2O
Law of Conservation of Mass	_____ g Mass of Reactants						_____ g Mass of Products
	Mass is **conserved** / **not conserved**						

3. $2Mg(s) + O_2(g) \rightarrow 2MgO(s)$

	2Mg(s)	+	$O_2(g)$	→	2MgO(s)
In terms of representative particles	_____ atom(s) of Mg	+	_____ molecule(s) of O2	→	_____ molecule(s) of MgO
In terms of moles	_____ mol of Mg	+	_____ mol of O2	→	_____ mol of MgO
In terms of mass	_____ g of Mg	+	_____ g of O2	→	_____ g of MgO
Law of Conservation of Mass	_____ g Mass of Reactants				_____ g Mass of Products
	Mass is **conserved** / **not conserved**				