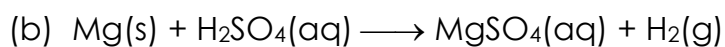
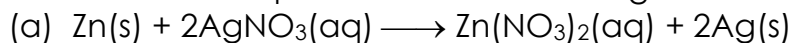
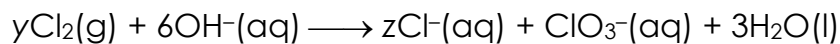


Quiz (Writing Ionic Equations)

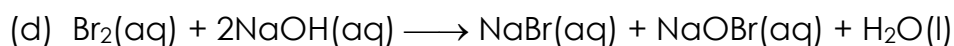
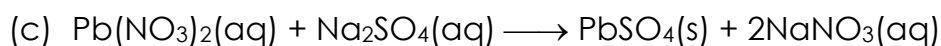
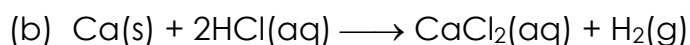
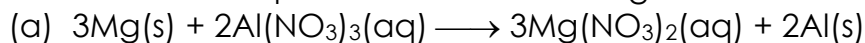
1. Write the ionic equations for the following reactions.



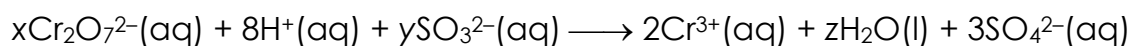
2. Find the values of y and z in the ionic equation:

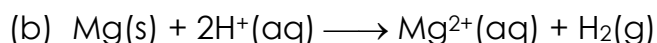
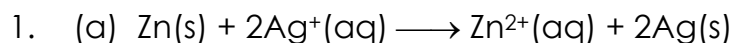


3. Write the ionic equations for the following reactions.



4. What are the values of x , y and z in the following ionic equation?



Suggested Answer

2. Since there are 6 oxygen atoms on the left-hand side and 6 oxygen atoms on the right-hand side, the stoichiometric coefficient for
- ClO_3^-
- must be 1. An ionic equation must be balanced with respect to ionic charges.

Net charge of reactants = -6 = net charge of products

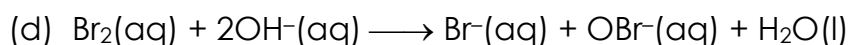
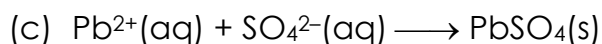
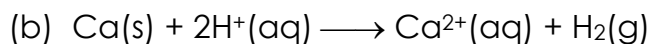
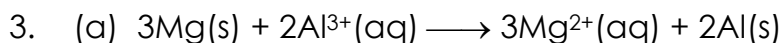
$$\therefore -6 = z(-1) + (-1) \quad \Rightarrow \quad z = 5$$

An ionic equation must also be balanced with respect to number of atoms of any kind.

Consider chlorine atoms, number of Cl atoms on the right-hand side = $5 + 1 = 6$

$$\therefore \text{number of Cl atoms on the left-hand side} = 6$$

$$\Rightarrow y = 3$$



4. $x = 1; \quad y = 3; \quad z = 4$