

① Arrhenius Acid

It increases the concentration of  $H^+$  ions  
 $H_2O^+$

Lewis Acid

Acids are electron pair acceptors

~~Acid is able to form a covalent bond with whatever supplies the electrons.~~

Base (Arrhenius)

It increases the concentration of  $OH^-$  ions

Lewis Base

Bases are  $e^-$  pair donors

② Although  $NH_3$  instead of not having hydroxyl group is a base because it forms  $OH^-$  ions when added to water as it reacts to form ammonia ions and hydroxide ions after forming ammonium hydroxide when mixed in  $H_2O$

Q14

$$\textcircled{3} \quad x^2 + y^2 + z^2 + 2x - 4y - 6z = 0$$

$$x^2 + 2x + 1 - 1 + y^2 - 4y + 4 - 4 + z^2 - 6z + 9 - 9 = 0$$

$$(x+1)^2 + (y-2)^2 + (z-3)^2 = 9$$