CONCEPT: ARRHENIUS ACIDS AND BASES

● General definition of acids and bases was proposed by Swedish chemist Svante _____ in the 1800s.

      □ **Arrhenius Acid**: compound that produces _____ when dissolved in water.

$$HBr\ (aq) \longrightarrow \underline{\hspace{1cm}}\ (aq) + Br^-\ (aq)$$

      □ **Arrhenius Base**: compound that produces _____ when dissolved in water.

$$KOH\ (aq) \longrightarrow K^+\ (aq) + \underline{\hspace{1cm}}\ (aq)$$

● *Arrhenius* definition of acids and bases is limited to _____ solutions.

EXAMPLE: Write a dissociation equation showing how HNO_3 and $Al(OH)_3$ act as Arrhenius acid and base, respectively.

PRACTICE: Out of the following compounds, which can only be an Arrhenius acid?

a) NaCl

b) $Sr(OH)_2$

c) H_2O

d) CH_3COOH

e) NH_3

PRACTICE: Which of the following is an Arrhenius base?

a) $Mg(OH)_2$

b) BaO

c) CH_3NH_2

d) NH_4^+

e) H_2SO_4