CONCEPT: PRODUCTION OF HYDROGEN

• There are several reactions that produce hydrogen gas. We will take a look at 2 reactions.

From Ionic Hydrides

- Ionic hydrides can be used as a source of H₂.
 - □ Due to _____ nature of H⁻, it reacts with _____ or ___ to form H₂ gas.

H_2 from Ionic Hydrides $MH_2 (s) + \underline{\quad} HA (aq) \longrightarrow \underline{\quad} H_2 (g) + \underline{\quad} (aq)$

EXAMPLE: Complete and balance the following reaction.

From Metal and Acid

• When reactive metals react with _____ or ____, metal is oxidized and H₂ is formed.

$$H_2$$
 from Metal & Acid

M (s) + __ H⁺ (aq) \longrightarrow H_2 (g) + ___ (aq)

EXAMPLE: Complete and balance the following reaction.

CONCEPT: PRODUCTION OF HYDROGEN

PRACTICE: Complete and balance given reaction.

$$BaH_2$$
 (s) + H_2O (l) \longrightarrow

PRACTICE: Complete and balance given reaction.

$$Zn(s) + H_2SO_4(aq)$$