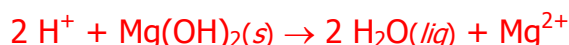
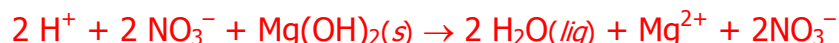


Unless otherwise specified, each question is worth 4 points.

1. Write the balanced (a) formula / molecular, (b) complete ionic, and (c) net ionic equations for the following acid-base reaction: (6 points)



2. If 19.84 mL of 1.000 M NaOH was required to completely neutralize a 25.00-mL sample of acetic acid (HC₂H₃O₂) solution, what was the molarity of the acid solution? (6 points)

0.7936 M

3. Assign oxidation numbers for nitrogen in each of the following: (1 point each)

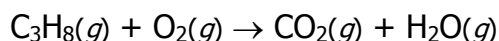
a. N₂ 0

b. Li₃N 3-

c. N₂H₄ +2

d. NO₂⁻ 3+

4. Identify the element oxidized and the element reduced in the following (*unbalanced*) reaction:



OXIDIZED = C
REDUCED = O

