

CHEMISTRY 31

Quiz 5 - 10 minutes Spring, 2017

Name _____

A solution is prepared in which 0.0050 moles of solid MgSO_4 is dissolved completely in water making a 1.000 L solution. Besides the dissociation reaction, Mg^{2+} also can react to form the complexes $\text{MgSO}_4(\text{aq})$ and MgOH^+ (assume no other complexes form). To simplify this problem, assume that SO_4^{2-} does not react with water and do not consider activity.

a) Write out all of the reactions including dissociation. (4 pts)

b) Give a charge balance equation based on the listed reactions above. (2 pts)

c) Give two mass balance equations based on the listed reactions and the initial concentration of MgSO_4 . (4 pts)