Grossmont College Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Chemistry 142

Spring 2015, Quiz 4 Date: \_\_\_\_\_\_\_\_\_\_\_\_

1. A 10.0-mL solution of 0.300 M NH3 is titrated with a 0.100 M HCl solution. Calculate the pH after the following additions of the HCl solution Kb= 1.8 x 10–5 for NH3

(a) 0.0 mL

(b) 30.0 mL

(c) 40.0 mL

1. A 100.0 mL buffer is 0.15 M K2HPO4(aq) and 0.10 M KH2PO4(aq).
2. Calculate the pH of the buffer
3. Calculate the new pH if 10.0 mL of 1.0 M HNO3 are added.