Challenge Problem #6

Name ____________________________

Due Monday, Mar. 13, 2006, 5:00 pm. Room 121 Chemistry

A 10.0 mL sample of saturated Ca(OH)₂(aq) is diluted to 250.0 mL in a volumetric flask. The solubility of Ca(OH)₂ is 0.17 g/100 mL solution. A 10.0 mL sample of the diluted Ca(OH)₂(aq) is transferred to a beaker and some water is added. The resulting solution requires 25.1 mL of an HCl solution for its titration. What is the molarity of this HCl solution?