

Name _____ Section _____ Date _____

Dilution

1. How do we prepare 200 mL of a 3.5 M solution of acetic acid if we have a bottle of 6.0 M acetic acid? Alternatively this question can be asked: How many mL or what volume of 6.0 M acetic acid would we measure to make 200 mL of a 3.5 M solution of acetic acid? (117 mL)

2. How would you prepare 500 mL of a 0.30 M HCl solution from a concentrated solution of hydrochloric acid? Concentrated hydrochloric acid is 12 M.

1. We have 500 mL of 0.24 M NaOH. This solution is diluted to 800 mL. What is the molarity of the resulting solution? (0.15M)

4. Given a 15% solution of NaCl, how would you make 250 mL of a 0.90% solution of NaCl? Show the calculation and describe the process. Assume solutions are % by mass/volume.