Solutions Practice Exam

Chemistry

Free Response

Answer each question, showing all work for full credit.

1 Draw ten water molecules. Show the hydrogen bonding network about at least two of these molecules.

2 Salts separate in water solution into their component ions. Draw how NaCl separates into its sodium and chloride ions in a water solution, and show how the water molecules surround each.

3 You need to make 400mL of a 0.15M FeSO4 solution for a lab. Calculate the mass in grams of solid iron(II) sulfate you mix into this solution.

4 A lab requires about 125mL of 2.0 *M* H2SO4. Concentrated sulfuric acid is 18*M*, so this must be diluted. How much concentrated sulfuric acid is needed before diluting?