



In Class Exercises (ICE) - 12/1/00

In chem lab, the first step in the lab is to make up a solution of ethanol (C_2H_5OH). The instructions from the lab manual read as follows:

Pour precisely one (1) liter of distilled water into a flask. Add the required amount of 100% C_2H_5OH to the flask. Cap the flask and shake vigorously.

• Call the concentration of the ethanol solution 'C' and the volume of ethanol added 'V.' What is the relationship between 'C' and 'V'?

• When your lab TA comes around, your lab partner asks her, "Isn't this the wrong way around? I mean, wouldn't you know what concentration you wanted and have to figure out how much ethanol to add?" In mathematical terms, what is your lab partner describing?

• Is your lab partner's idea feasible? What would the relationship between 'V' and 'C' be?