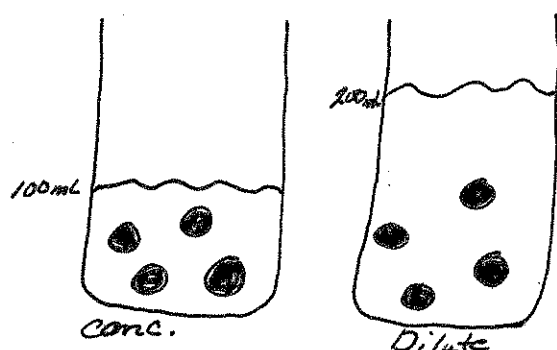


Dilutions

Normally acids are bought as very concentrated solutions. Sulphuric acid, for example, is bought at 18 M. In the lab, however, we normally use between 0.01M and 1 M solutions. This means that we must dilute it. To do that we take a known amount of a known concentration of an acid or base and add it into water to dilute it.



*Same amount of solute
More solvent
∴ Diluted*

Since a reaction depends on the concentration of a solution, we need to know how much water we need to add to make the concentration that we want.

To do this we use the following calculation

$$C_1 \times V_1 = C_2 \times V_2$$

C_1 = concentration of the one solution

V_1 = volume of the one solution in L

C_2 = concentration of the other solution

V_2 = volume of the other solution in L