By finding the density of several solutions with known salinity, we can find the salt content of the sea water.

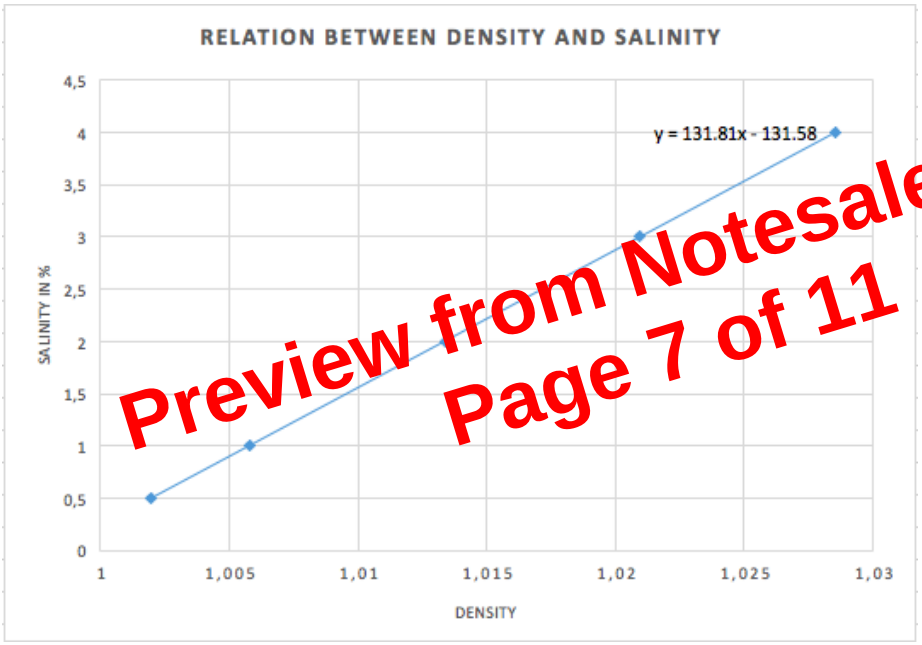
Procedure:
We started out finding the density of a sea water sample. We repeated this three times to get correct and useful answers. Our teacher had given us the density of 5 different salt water solutions with known salinity.

Results:
The mass of the Erlenmeyer flask was 52.19g and the average mass of the flask and the seawater was 77.30g. With this information we found the average mass of seawater which is 25.11g By dividing the mass and the volume, which is 25 cm^3, we get the density.

m/V=d

Therefore 25.11/25=1.0044 g/cm^3 so the density is 1.0044.

We put the numbers from the solutions with known salinity into a graph, and used that to calculate the salinity of the sea water.



Graph 1. Shows relation between density and salinity.

The graph shows the equation of the line, which is used to calculate the salinity. We put in the density of the sea water as x, therefore y is the salinity.

131.81 * 1.0044 – 131.58 = 0.809964%
Therefore, the salinity of the sea water is 0.809964.

2) Evaporation