explain the steps you would follow to make 500mL of a 0.5 mol/ L solution of sodium chloride (NaCl) in the lab.

Answer:

The first step.

To determine the mass of NaCl:

m(NaCl)=V·C·M(NaCl)=0.5(L) 0.5 (mol/ L)·58.5(g/mol)= 14.625 g

The second step.

14.625 g NaCl is weighed, and put this NaCl in the volumetric flask measures 500 mL.

The third step.

NaCl is dissolved in less water.

The fourth step.

Fill the flack to the mark.