**Simple Concentration Problems Worksheet** $C=\frac{n}{V(l)}$

1. What is the concentration of a 0.30 litre solution containing 0.50 moles of NaCl?

1. Calculate the concentration of 0.289 moles of FeCl3 dissolved in 120 ml of solution?

1. If a 0.075 litre solution contains 0.0877 moles of H2SO4, what is the concentration of the H2SO4 solution? What is the concentration of the H+ ions in the solution? What is the concentration of the SO42- ions in the solution?

1. How many moles of NaCl are present in 600. ml a 1.55 M NaCl solution?

1. How many moles of H2SO4 are present in 1.63 litres of a 0.954 M solution?

1. How many litres of solution are needed to make a 1.66 M solution containing 2.11 moles of KMnO4?

1. What is the concentration of 650. ml of a solution containing 63 grams of NaCl?

1. How many grams of Ca(OH)2 are needed to produce 500. ml of 1.66 M Ca(OH)2 solution?

1. What volume of a 0.88 M solution can be made using 130. grams of FeCl2?

#  Dilution Problems Worksheet

1. How do you prepare a 250.-ml of a 2.35 M HF dilution from a 15.0 M stock solution?

1. If 455-ml of 6.0 M HNO3 is used to make a 2.5 L dilution, what is the concentration of the dilution?

1. If 65.5 ml of HCl stock solution is used to make 450.-ml of a 0.675 M HCl dilution, what is the concentration of the stock solution?

1. How do you prepare 500.-ml of a 1.77 M H2SO4 dilution from an 18.0 M H2SO4 stock solution?

# Extra Concentration Problems for Practice

1. How many moles of LiF would be required to make a 2.5 M solution with a volume of 1.5 L?

1. How many moles of Sr(NO3)2 would be used in the preparation of 2.50 L of a 3.5 M solution?

1. What is the concentration of a 500-ml solution containing 249 g of KI?

1. How many grams of CaCl2 would be required to produce a 3.5 M solution with a

 volume of 2.0 L?