EXAMPLES

1) The discharge through a horizontal capillary tube is thought to depend upon the pressure per unit length, the diameter, and the viscosity. Find the form of the equation.

2) The losses per unit length $\left(\dfrac{\Delta h}{L}\right)$ of pipe in turbulent flow through a smooth pipe depend upon velocity V, diameter D, gravity g, dynamic viscosity μ and density ρ. With dimensional analysis determine the general form of the equation.

NOTE:

1. ALL PROBLEMS AND EXERCISES WILL BE SOLVED IN THE CLASS AND SOME WILL BE TAKEN AT TUTORIAL CLASS

2. THIS CLASS NOTE WILL NOT REPLACE THE RECOMMENDED TEXTS

3. SOME OF THE BOOKS ARE AVAILABLE IN THE MAIN LIBRARY AND COLLEGE LIBRARY