MAE123, Assignment 2

Problem 1 (40 points)

An undisturbed cylindrical core sample of soil 10 cm high and 5 cm in diameter weighs 350 gm. The density of solids is $\rho_s = 2.65 g/cm^3$. Calculate the total porosity.

Problem 2 (30 points)

Derive the solution for $K$ in Eq. (2.52) of the Notes.

Problem 3 (30 points)

Develop a mathematical model (equations and boundary conditions) for the Owens Valley Aquifer shown in the figure below.