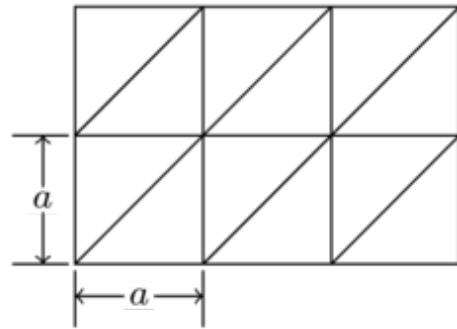
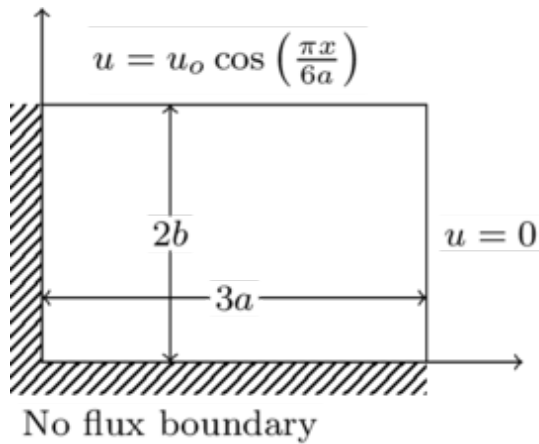


PGE 383 Advanced Geomechanics - Assignment 4

April 16, 2025

Problem 1



Consider the following two-dimensional diffusion problem. Use the discretization below to solve for the unknown diffusing concentrations at the nodes with $a = 1$ and $u_o = 100$ assuming a consistent unit system. The diffusion coefficient matrix is the identity matrix. Perform the following tasks:

1. Solve the given problem.
2. Create effective plot(s) to visualize your results from 1.

Note: Submit a working version of your code to Canvas. Any supplemental material explaining your answer in part (b) can be turned in to me via hard copy or scanned and submitted to Canvas with your code.