

ENME 631 Numerical Methods

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Language: Julia

The file "Assignment 3.jl" runs all of code requested in Q1-3. Explanation and comments below.

Question 1:

The Solvers:

Solving the sample matrix:

Question 2:

The Solvers:

Solving the sample matrix:

Question 3:

Assumptions:

- Assumed the fluid is air, using the following constant values:
- $Pr = 0.71$
- Volume coefficient of expansion (β) = $0.0034 / K$
- Kinematic viscosity = $1.48e-5 \text{ m}^2/s$

The Solvers:

Solving the sample matrix: