

# Homework Assignment 2 - Research Methods: Numerical Methods

Due Nov 30, 2025

1. Do the following problems from Chapter 5, 6 and 7 exercises of the textbook.
  - 5.1
  - 6.10
  - 7.3
  - 7.10
2. Write Newton's method code using `MATLAB` or `Python` or any language you feel comfortable to find the solutions accurate to within  $10^{-5}$  for the following equation:

$$\ln(x - 1) + \cos(x - 1) = 0$$