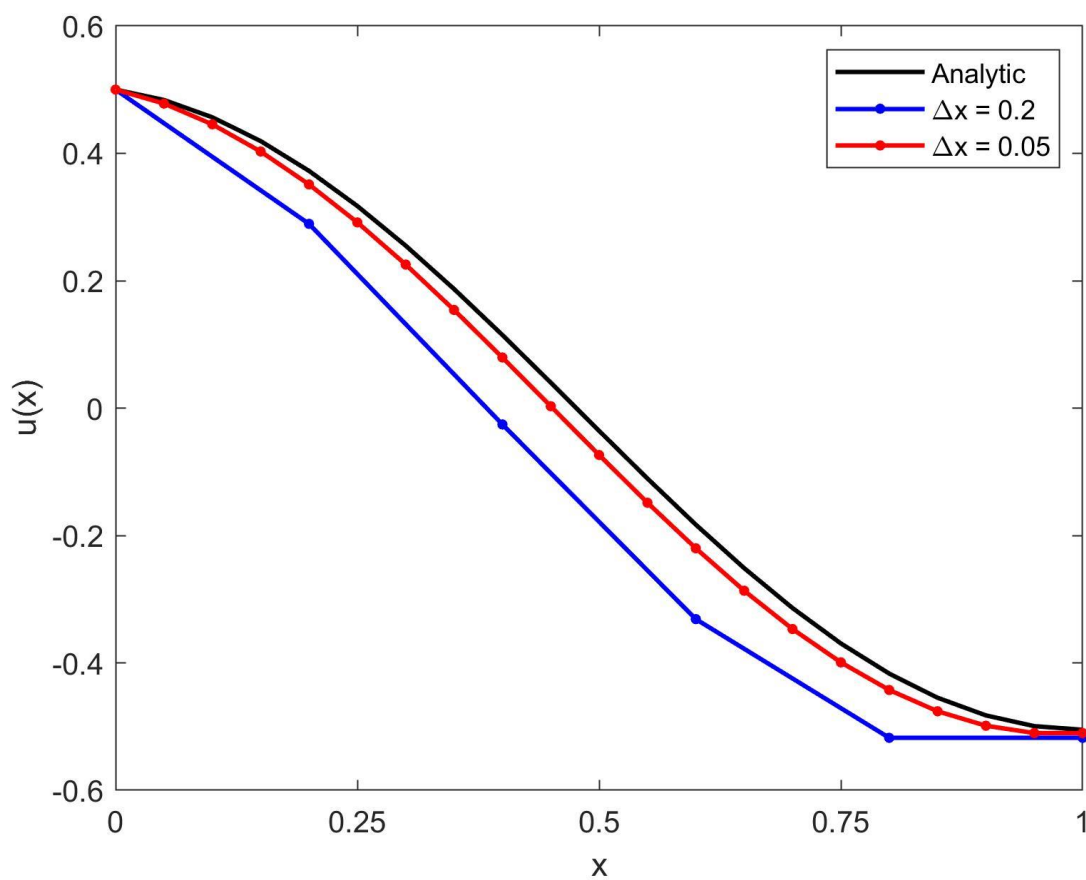**MAE384 Spring 2022 HW7 Solution**

Problem 1

Analytic solution is

$$u(x) = 0.5 \cos(3x) + 0.5 \tan(3) \sin(3x)$$

Plot of analytic and numerical solutions:

Problem 2

Plot of numerical solutions: