CS 322: Quiz 6

Friday, August 2, 2002

The rules for this quiz are as follows:

- **Write your name and student ID number in the upper-right hand corner of the quiz.**
- This quiz will last for 15 minutes.
- Show **ALL** work for partial/full credit. This includes any definitions, mathematics, figures, etc.
- The quiz is closed book and closed notes, and no calculators are allowed on the quiz.
- No collaboration of any kind is allowed on the quiz.

1. (10 points) Write a Matlab script to compute an approximation to $x(1)$, where

$$\begin{aligned} z''(t) - 2z'(t) &= t, \\ x'(t) &= z'(t)x(t), \end{aligned}$$

$z(0) = 3, z'(0) = -1$, and $x(0) = 5$. Use the Forward Euler Method with $h = 0.01$.

You may NOT use any pre-existing Matlab functions from your textbook or from the Matlab software package on this quiz.