CS 322: Quiz 4

Friday, July 19, 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. (7 points) The Trapezoidal rule applied to $\int_0^2 f(x)dx$ gives 6, and Simpson's rule gives 14. What is $f(1)$? Make a graph of a function $f(x)$ which could have been the function that was integrated. Label your graph appropriately.

2. (3 points: 1.5 points each)

   - What is the goal of Gauss quadrature?

   - Name one context where spline quadrature is useful.