

Aero 320: Numerical Methods

Lab Assignment 18

Fall 2013

Problem 1

Numerical integration

Numerically integrate $\int_0^{\frac{\pi}{2}} \cos x \, dx$, using

- (a) Midpoint formula with partition $[0, \frac{\pi}{4}]$, $[\frac{\pi}{4}, \frac{\pi}{2}]$.
- (b) Trapezoid method with the same partition as part (a).
- (c) Three point Simpson's method.