MATH 373: CLASS 16

1. Exercise

1) Find the degree of precision of the quadrature formula

$\int_{-1}^{1} f(x)dx = f(-\frac{\sqrt{3}}{3}) + f(\frac{\sqrt{3}}{3})$.

2) The degree of precision of the quadrature formula

$\int_0^2 f(x)dx = c_0 f(0) + c_1 f(1) + c_2 f(2)$.

is 2. Determine c_0, c_1 and c_2.

3) Find an error bound of the Trapezoidal rule approximation to $\int_0^1 x^2 e^{-x} dx$.

Date: August 2, 2007.