

MA 224 – EXAM 2

TRAPEZOIDAL RULE

$$\int_a^b f(x)dx \equiv \frac{\Delta x}{2} \left[f(x_0) + 2f(x_1) + 2f(x_2) + \cdots + 2f(x_{n-1}) + f(x_n) \right],$$

where $a = x_0, x_1, x_2, \dots, x_n = b$ subdivides $[a, b]$ into n equal subintervals of length $\Delta x = \frac{b-a}{n}$.