MA 16010 Quiz 11

Lesson 28-29

13 April 2022

Problem 1. Given $y' = 3e^x + x$, and $y(0) = 4$, find $y(2)$.

Problem 2. Recall the equation for a left Riemann Sum.

$$L_n = \sum_{i=0}^{n-1} f(x_i) \cdot \Delta x$$

where $x_i = a + i \cdot \Delta x$ and $\Delta x = \frac{b-a}{n}$.

Write down the equation for the Left Riemann Sum, L_n, with 200 rectangles used to estimate the area under the curve

$$f(x) = 3x^2 + 2$$

on the interval $[1, 11]$.