國立臺灣海洋大學河海工程學系 2001 工程數學 (三) 第九次作業小考

1. Derive the closed-form solutions for the Green function and particular solution for

$$\frac{d^2y(x)}{dx^2} + \frac{1}{4}y(x) = \sin(2x),$$

subject to

$$y(0) = y(\pi).$$

Compare the results with the series solutions in the textbook and plot.