1 Problems for everyone

1. pg. 240-241, #6.2.1, #6.2.10-6.2.14.

2. Find the Green’s function for the following boundary value problem on $\mathbb{R}$:

$$u'' - u = f(x), \quad \lim_{x \to -\infty} u(x) = 0, \quad \lim_{x \to \infty} u(x) = 0.$$

2 Graduate Problems

1. Find the Green’s function for the following boundary value problem:

$$u'''(x) = f(x)$$

$$u(0) = u(1) = 0$$

$$u'(0) = u'(1) = 0.$$