Week 13

Monday November 17 : *Worksheet 31*

Laplace Transform and the Delta Function. We shall be introduced to one of the strangest function in all of mathematics, the Dirac Delta Function, $\delta(t)$ and how it can be used to solve problems that have an impulse forcing using Laplace Transforms.

Reading:

Blanchard, Section 6.4

Homework #30:

Blanchard, Section 6.4: 1, 2, 5, 7, 8.

Wednesday November 19 : *Worksheet 32*

Laplace Transforms and Convolutions. We shall discuss the equivalent of the product rule for Laplace Transforms and be introduced to the concept of the convolution of two functions.

Reading:

Blanchard, 6.5

Homework #31:

Blanchard, Section 6.5: 2, 5, 6, 9.

Quiz:

Reading Quiz #5.

Friday November 21 : *Worksheet 33*

Revisiting Euler's Method. We shall re-visit Euler's Method and explore the error term.

Reading:

Blanchard, Section 7.1 and 7.2

Homework #32:

Blanchard, Section 7.1: 3, 7, 10.
Blanchard, Section 7.2: 1, 7, 8, 13.

Quiz:

Take-Home Quiz #7.