

## ENG 122 Fall 2016 Homework #06

**DUE: Monday, November 07, 2016 before class in Box A in the MAE department if a paper assignment and if digital turn it in via Canvas.**

### Problems

**Problem 3.26** As stated in the book.

**Problem 3.32** Determine the Fourier series as the problem states. Then discuss the effects of using fewer or more terms in the infinite series. Finally, plot the response of a linear system described by  $m = 100$  kg,  $\zeta = 0.1$ , and  $k = 1000$  N/m to the square wave. Include the transient and steady state response when  $x_0 = 0.1$ m and  $v_0 = 0$ m/s.