Homework #9: Due Wednesday, Apr 10, at 4 PM

Problems are taken from the exercises in the Edwards & Penney textbook. Read through the text before working on the problems, and please make use of office hours provided by the teaching staff or the Math Learning Center if you find them difficult. Submit your homework either to your instructor during lecture or to your TA during recitation or at their office. Late homework assignments will not be accepted.

Problems

Write up these problems neatly and submit them by the due date above. Show your work where appropriate for full credit. Answers without justification may receive no credit, particularly if they are provided in the textbook or student solution guide. If your homework solutions require multiple pages, please staple them together.

- Section 3.6: 4, 8, 12, 18, 28, with modified graphing directions below:

  * On #4, omit the graph.

  * On #8, graph $x_{sp}(t)$ and $\tilde{F}(t) = \frac{F(t)}{m\omega^2}$ (which has units of length, unlike $F(t)/m\omega$).

  * On #12, graph both $x_{sp}(t)$ and $x(t) = x_{sp}(t) + x_{tr}(t)$.

- Section 4.1: 2, 8, 24