

Turn in starred problems Wednesday 11/05/2014.

This is a brief and relatively easy assignment; we will cover the necessary material (Sections 17.2 and 17.3, plus Chapter 1 and Section 2.1 of the posted notes) on or before Wednesday, October 29.

The second exam will be on Monday, November 19.

Section 17.2: 5: all parts. 12: all parts, but turn in only (d)*, (k)*, (o)*, (p)*; justify your answers.

Section 17.3: 1, 4 (a), (b), (f)*, (k), (m)*, 16 (b)*

9.A* Let

$$F(t) = \begin{cases} 50, & \text{if } -8 < t < -2, \\ 0, & \text{if } -2 \leq t \leq 4. \end{cases}$$

Solve problem 17.3:18 for this function $F(t)$. (Note that we studied this function in Problem 17.3.4(f), so that you can use the solution to that problem here without recomputing it.)

Comments, hints, instructions:

1. 17.2.12(k). (o), and (p) are a bit tricky—think carefully.
2. 17.3 4(m) is easy, if you use the formula $\sin^2 x = (1 - \cos 2x)/2$ (which corresponds to the hint given for 4(l)). With this hint the problem can be done by inspection: **think before you compute, and you won't have to compute.** Note that this problem is related to 17.2 12(k).