

# PHYS:4762 Homework #10

Reading: Read Arfken, Weber, & Harris, Chapter 20, Section 20.9–20.10 (p.1034–1042)  
Chapter 21, Section 21.1 (p.1047–1052)

Due at the beginning of class, Thursday, April 14, 2016.

## Homework Problems:

1. Chapter 20, Exercise 20.8.14 (a) only
2. Chapter 20, Exercise 20.8.22 (a) only
3. Chapter 20, Exercise 20.8.23 (a) only
4. Chapter 20, Exercise 20.9.2
5. Chapter 20, Exercise 20.10.5
6. Chapter 20, Exercise 20.10.10
7. Chapter 20, Exercise 20.10.12

NOTE: Do not be confused by the second sentence in the problem. It just means that any function  $f(t)$  of the form

$$f(t) = \begin{cases} 0 & t < t_0 \\ g(t) & t > t_0 \end{cases} \quad (1)$$

can be expressed as  $f(t) = g(t)u(t - t_0)$ , where  $u$  is the Heaviside step function.

8. Chapter 21, Exercise 21.1.1
9. Chapter 21, Exercise 21.1.2