

# PHYS:4762 Homework #4

Reading: Read Arfken, Weber, & Harris, Chapter 12, Sections 12.4–12.8 (p.571–596)  
Chapter 14, Sections 14.1 (p.643–654)

Due at the beginning of class, Thursday, February 15, 2018.

## Homework Problems:

1. (10 pts) Chapter 12, Exercise 12.4.5  
NOTE: The answer in the text to part (b) is missing a minus sign, and should be  $-\zeta(2)$
2. (10 pts) Chapter 12, Exercise 12.5.2
3. (10 pts) Chapter 12, Exercise 12.5.5
4. (10 pts) Chapter 12, Exercise 12.6.2
5. (10 pts) Chapter 12, Exercise 12.6.4
6. (10 pts) Chapter 12, Exercise 12.7.2
7. (10 pts) Chapter 12, Exercise 12.8.2
8. (10 pts) Chapter 12, Exercise 12.8.4
9. (10 pts) Chapter 14, Exercise 14.1.3
10. (10 pts) Chapter 14, Exercise 14.1.12