

PHYS:4761 Homework #5

Reading: Read Arfken, Weber, & Harris, Chapter 4, Sections 4.4–4.7 (p.227–248)

Due at the beginning of class, Thursday, September 28, 2023.

Homework Problems:

1. (10 pts) Chapter 3, Exercise 3.10.4
2. (5 pts) Chapter 3, Exercise 3.10.12
3. (5 pts) Chapter 3, Exercise 3.10.14
4. (10 pts) Chapter 3, Exercise 3.10.26
5. (10 pts) Chapter 3, Exercise 3.10.28
6. (10 pts) Chapter 3, Exercise 3.10.35
7. (5 pts) Chapter 4, Exercise 4.1.10
8. (10 pts) Chapter 4, Exercise 4.2.3
9. (10 pts) Chapter 4, Exercise 4.3.5
10. (10 pts) Chapter 4, Exercise 4.4.3
11. (10 pts) Chapter 4, Exercise 4.6.3
12. (5 pts) Chapter 4, Exercise 4.7.1

HINT: Let $dx = a_1 du + a_2 dv + a_3 dw$, $dy = b_1 du + b_2 dv + b_3 dw$, etc.