

NORTHERN ILLINOIS UNIVERSITY

PHYSICS DEPARTMENT

Physics 383 – Modern Physics

Fall 2023

Problem Set #6

Problem Set Due: Thurs., Oct. 19, 2023

Read Krane: Chapter 6.4-6.5, 7.1-7.2

*There will be a Quiz #2 on Tuesday, October 24*

1. OpenStax University Physics Vol. 3: Section 1.3: Problem 39
2. OpenStax University Physics Vol. 3: Section 1.4: Problem 47
3. OpenStax University Physics Vol. 3: Section 1.5: Problem 55

**Chapter 6**

4. Krane: Problem 25 page 204
5. Krane: Problem 28 page 204  
sketch the energy level transition for each case (see Fig. 6.20).

**Chapter 7**

6. Krane: Problem 1 page 233 (just show calculation)
7. Krane: Problem 2 page 233 (sketch the probability density)
8. Krane: Problem 4 page 233 (draw figure—see Fig. 7.3)