

NORTHERN ILLINOIS UNIVERSITY

PHYSICS DEPARTMENT

Physics 283 – Modern Physics

Spring 2025

Problem Set #8

Problem Set Due: Thurs., Apr. 3, 2025

Read Krane: Chapter 8.1-8.6

There will be a Quiz #3 on Tuesday, April 8

1. OpenStax University Physics Vol. 3: Section 2.2: Problem 37
2. OpenStax University Physics Vol. 3: Section 2.3: Problem 45
3. OpenStax University Physics Vol. 3: Section 2.4: Problem 55

4. Krane: Problem 1 page 266 (just show calculation)
5. Krane: Problem 6 page 267 (just show calculation)
6. Krane: Problem 7 page 267 (just show calculation)
7. Krane: Problem 14 page 267
(sketch energy level diagram & transitions for (a) & (c))
8. Krane: Problem 17 page 267 (just show calculation)
9. Krane: Problem 22 page 267 (just show calculation)