

NORTHERN ILLINOIS UNIVERSITY

PHYSICS DEPARTMENT

Physics 283 – Modern Physics

Spring 2026

Problem Set #8

Problem Set Due: Thurs., April 2, 2026

Read Krane: Chapter 8.1-8.6

There will be a Quiz #3 on Tuesday, April 7

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)