

PHYS 451 – HOMEWORK # 3 – DUE TUESDAY, 10/17/2013

1. P4.13 p.126.
2. P4.14 p.126.
3. P4.17 p.127.
4. P4.21 p.128.

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**Key**

Unless otherwise specified, questions and problems are from the course textbook:

Richard W. Robinett  
*QUANTUM MECHANICS (SECOND EDITION)*  
Oxford University Press (2006)  
ISBN-13: 978-0198530978

**P(Q)X.Y p.Z** means “Problem (Question) P(Q)X.Y of Chapter X, page Z.”

Example: Problem P1.2 p.24 = Problem P1.2 of Chapter 1, page 24.

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Quantum mechanics, science dealing with the behavior of matter and light on the atomic and subatomic scale. It attempts to describe and account for the properties of molecules and atoms and their constituents—electrons, protons, neutrons, and other more esoteric particles such as quarks and gluons. Basic considerations. At a fundamental level, both radiation and matter have characteristics of particles and waves. The gradual recognition by scientists that radiation has