PHYS 308 – HOMEWORK # 1 – DUE MONDAY, 1/31/2011

1. **Problem 1.1 p.39.**

2. **Problem 1.2 p.39.**

3. **Problem 1.3 p.39.** Hint: "Conservation laws of mechanics" means conservation of momentum (sum of initial momenta equal sum of final momenta, $\sum \mathbf{p}_i = \sum \mathbf{p}_f$) and conservation of energy ($\sum E_i = \sum E_f$).

4. **Problem 1.5 p.39.**

Key

Unless otherwise specified, problems are from the course textbook:

F.W. Byron, R.W. Fuller
Mathematics of Classical and Quantum Physics
Dover Publications (1992)
ISBN-10: 048667164X, ISBN-13: 978-0486671642.

Problem X.Y p.Z means "Problem No. Y of Chapter X, page Z."

Example: Problem 1.3 p.39 = Problem No. 3 of Chapter 1, page 39.