

## 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.**

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### 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)

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**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.

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