Department of Physics
University of Maryland

Fall 2004

Physics 273
Homework Assignment # 1
Due: Sept. 7, 2004

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READING ASSIGNMENT: Read Chapters 1-2 in textbook

1) Send the course instructor an electronic mail message.
Give your name, major and career goals. (20 points).

2) 273 Problems, (20 points each),
Problems: 1.1, 1.2, 1.3, 2.1, 2.2

3) 273H Problems, (20 points each),
Problems: 1.1, 1.2, 1.6, 2.1, 2.2

273H Supplemental Problem

Two one dimensional oscillators are described by

$$x_1(t) \;=\; A_1\, cos\Big(\omega_1\, t \;+\; \phi_1\Big) \quad , \quad x_2(t) \;=\; A_2\, cos\Big(\omega_2\, t \;+\; \phi_2\Big)$$

respectively. Using complex variables as described in class, find the form of the result of superimposing these two oscillators.