

Homework 3

Total 21 points

Due Monday, September 23, 12:50 pm in class.

Reading: Chapter 3 from the textbook.

Note: Make your solutions neat, concise, and intelligible. It is not sufficient just to state the answer. Points may be deducted, if it is difficult to find and/or understand the solutions.

Problem 1 [3pts]. A shell exploding in mid-air. Problem 3.3★ from the textbook.

Problem 2 [4pts]. Hobos jumping off a train. Problem 3.4★★ from the textbook.

Problem 3 [3pts]. A hungry asteroid. Problem 3.29★ from the textbook.

Problem 4 [3pts]. Failed gun shell. Problem 3.19★★ from the textbook

Problem 5 [3pts]. The next AGT winner perhaps? Problem 3.34★★ from the textbook.

Problem 6 [5pts]. Motion of a uniform disk. Problem 3.35★★ from the textbook.