

Physics 3221
Fall Term 2018
Homework Problem Set 4

Due Monday, September 24, 13:40 pm in class.

Reading: Chapter 3.

Problem 1. A shell exploding in mid-air. Problem 3.3★ from the textbook.

Problem 2. Hobos jumping off a train. Problem 3.4★★ from the textbook.

Problem 3. Rocket motion in the presence of an external force. Problem 3.11★★ from the textbook.

Problem 4. A rocket ascending in a gravitational field. Problem 3.13★★ from the textbook.

Problem 5. A rocket in goo. Problem 3.14★★ from the textbook.

Problem 6. The center-of-mass of a half-disk. Problem 3.21★★ from the textbook.

Problem 7. A hungry asteroid. Problem 3.29★ from the textbook.

Problem 8. The next AGT winner perhaps? Problem 3.34★★ from the textbook.