

Phys 410

Spring 2013

Homework #2

Due Friday, 8 February, 2013

All problems are from Taylor, *Classical Mechanics*.

- 1) Problem 2.46 Complex numbers
- 2) Problem 2.52 Circular motion
- 3) Problem 2.53 Charge in an electric and magnetic field
- 4) Problem 3.2 Conservation of linear momentum
- 5) Problem 3.8 Hovering
- 6) Problem 3.12 Multistage rockets
- 7) Problem 3.15 Center of mass
- 8) Problem 3.25 Angular momentum
- 9) Problem 3.30 Moment of inertia
- 10) Problem 3.35 A disk rolling down an inclined plane

Extra Credit

- 1) Problem 2.55 The charged particle velocity selector