

Phys 410 – Homework #2

All problems from Taylor.

- 1) 3.7 (3 pts)
- 2) 3.11 (a, b, c, and d) (12 pts)
 - In rocket problems, it's easy to forget that m depends on time. So it's best to explicitly write $m(t)$ everywhere the mass appears, including in the gravitational force.
- 3) 3.12 (a and b) (6 pts)
- 4) 3.35 (a, b, and c) (9 pts)
- 5) 3.36 (3 pts)
- 6) 4.2 (a, b, and c) (9 pts total)
- 7) 4.8 (3 pts)
- 8) 4.15 (3 pts)
- 9) 4.22 (3 pts)
- 10) 4.23 (a, b, and c) (9 pts total)
- 11) 4.29 (a, b, c, and d) (12 pts total)
- 12) 4.38 (part (a) only) (3 pts)
 - Notice that part (a) continues onto page 157.
- 13) 4.39 (b and c) (6 pts)