

Physics 136b, Week 8: Waves and Convection

(Dated: Feb 22, 2012, Due: Feb 29, 2012)

The maximum number of points you can get for this assignment is **40**, although you could choose to do problems that worth more than 40 points.

This week we discussed water waves, covering Chapter 16.1 – 16.3 of Blandford and Thorne (BT). [See version 1116.1.K of Chapter 16.]

1. *Fluid Motions in Gravity Waves*. Exercise 16.1 [15 Points]
2. *Shallow-Water Waves with Variable Depth; Tsunamis*. Exercise 16.2 [15 Points]
3. *Capillary Waves*. Exercise 16.6 [10 Points]
4. *Boat Waves*. Exercise 16.7 [15 Points]
5. *Single-Soliton Solution*. Exercise 16.9. [10 Points]