

**PHY100B HW #1**  
**Due Friday, 1/11/13 at 5pm**  
**Review of Complex Numbers**

**These problems should be mostly review and are due on Friday!!  
Start these right away.**

**Reading and Review**

Read Chapter 2 of Boas for review and begin reading Chapter 14. By the end of this assignment you should be very comfortable with complex numbers and functions. If you are not, the rest of the course will be *very* difficult. Keep working problems in Boas Chapter 2 until you can do them in your sleep. (It's a good idea to work extra problems anyway.)

**Problems from Chapter 2 of Boas**

- 1) Send Prof. Marolf an e-mail (at [marolf@physics.ucsb.edu](mailto:marolf@physics.ucsb.edu)) with subject line "P1Phys101" telling him
  - a) Your name.
  - b) What aspect of physics interests you most.
  - c) What part of Phys 101 you are most looking forward to.
  - d) What worries you most about taking Phys 101. Are there any holes in your background that need to be filled?
- 2) Section 4, page 51: Problem 13
- 3) Section 5A, page 52: Problem 6
- 4) Section 5B, page 53: Problem 25
- 5) Section 5C, page 53: Problem 28
- 6) Section 5D, page 54: Problem 50
- 7) Section 7, page 59: Problem 12
- 8) Section 9, page 64: Problem 25
- 9) Section 10, page 67: Problem 32
- 10) Section 12, page 71: Problem 27
- 11) Section 14, page 74: Problem 24
- 12) Section 15, page 76: Problem 18