

# Physics 207, Fall 2010

## Problem Set 1

To be handed in on Thursday September 23, before 4:30pm

The following problems are taken from Hogg's notes on Special Relativity:  
<http://www.physics.nyu.edu/hogg/sr/sr.pdf>. First carefully read Ch. 1–4.  
The same material is also covered in Chapter 14 of M & T, Sect. 14.1–14.6.

### Problem 1: Time dilation and Lorentz contraction

- a) Do Problem 2-6.
- b) Do Problem 2-14.

### Problem 2: Space-time diagrams

- a) Do Problem 3.3.

### Problem 3: Proper time and Twin paradox

- b) Do Problem 4-10.
- c) Do Problem 4-12.