

Physics 155 General Relativity

Homework 1

Assigned Monday Jan 6, 2020

Due Monday Jan 14, 2020 in the Phy 155 HW box (across from rm. 114 physics) by 3pm

Please hand in your homework on paper, with the pages numbered and your name clearly marked on each page.

Comments

This HW is intended to be a chance for you to refresh your knowledge of Special Relativity (SR), at which you are expected to already be proficient. Chapter 1 of Carroll reviews SR. Even if you feeling comfortable with it, and find the problems straightforward, I encourage you to at least skim Chapter 1 to orient yourself with the notation that Carroll uses.

- 1.1)** *Carroll Chapter 1, exercise 1*
- 1.2)** *Carroll Chapter 1, exercise 4*
- 1.3)** *Carroll Chapter 1, exercise 11*
- 1.4)** Show how Eqn. 1.106 in Carroll reduces to the Newtonian expression (given a few lines above in the text)