

Physics 263: Problem Set #4

These problems are due at the end of the day on Friday, April 24.

1. Morin 11.59 (Passing a train) p. 563
2. Morin 12.7 (Compton scattering) p. 612
3. Morin 12.24 (Photon and mass collision) p. 616
4. Morin 12.26 (Three photons) p. 616
5. Morin 12.32 (Pion-muon race) p. 617
6. Morin 12.36 (Pushing on a mass) p. 618
7. Morin 13.4 (Acceleration for linear motion) p. 645
8. (BONUS) Morin 13.11 (Three particles) p. 646
9. Shankar, problem 4.3.6 pg. 86.
10. Shankar, problem 4.3.7 pg. 86.
11. Shankar 5.2.4, pg. 94.
12. Shankar 5.2.6, pg. 94. (Write $z = x + iy$ with real x and y and show that each assertion is automatically true.)
13. Shankar, problem 5.2.7 pg. 94.