

Caltech – Ph106b – Winter 2002

Problem Set 1

due 1-15-2002

Here and in future problem sets, H&F will denote problems taken from Hand and Finch's *Analytical Mechanics*. Parts of these problems are review of material covered in Ph106a last term. If the set is easy, great! If not, it will help get us all on the same page.

1. (refresher on rotating tops) H&F 8-17.
2. (stability of circular orbits) H&F 10-1.
3. (driven pendulum) H&F 10-8.
4. (precession of Mercury, I) H&F 10-18.
5. (precession of Mercury, II) H&F 10-19.