## ASTRO 381: HOMEWORK 1

Assigned on Tue Feb. 13. Due in class on Th Feb. 22

GD refers to the class textbook "Galactic Dynamics" by J. Binney \& S. Tremaine (1987; Princeton University Press). The number of points for each question is indicated in brackets.

1. GD, problem 2-3 [ $\mathbf{1 5} \mathbf{~ p t s}$ ]
2. GD, problem 2-6 [ $\mathbf{1 5} \mathbf{~ p t s}$ ]
3. GD, problem 2-10 [ $\mathbf{2 0} \mathbf{~ p t s}$ ]
4. GD, problem 2-12 [ $\mathbf{1 5} \mathbf{~ p t s}$ ]
5. GD, problem 2-13 [ $\mathbf{1 5} \mathbf{~ p t s}$ ]
6. GD, problem 4-17. This exercise illustrates where the factor of 136 comes from in the expression for the evaporation timescale discussed in class. [ $\mathbf{2 0} \mathbf{~ p t s}$ ]
