Name _____

Homework Assignment #13 due in class Wednesday November 29

Staple this cover sheet in front of your solutions.

Write the requested answers on this sheet, and do the detailed solutions on your own paper.

[71] Problem 8.4 ★

Answer: Write the equation of motion.

[72] Problem 8.6 ★

Answer: No answer required here.

[73] Problem 8.12 ★★

Answer: Write the equations for ω_θ and ω_r .

[74] Problem 8.15 ★

Answer: By what percent would you expect the "constant" to vary?

[75] Problem 8.16 ★★

Answer: Write the equations for x and y.

[76] Visualize a binary star system, with masses M_1 and M_2 , in the center of mass frame of reference. Let's say $M_2 = 2\ M_1$.

Suppose the orbit of M_2 is an ellipse with eccentricity $\varepsilon = 0.5$.

Then sketch an accurately correct picture of the two orbits. *NEATNESS COUNTS.*