

Name \_\_\_\_\_

Homework Assignment #6 due in class Wednesday, October 11

*Cover Sheet : Staple this page in front of your solutions.*

Write the *answers* (without calculations) on this page;

write the detailed *solutions* (written carefully and legibly) on your own paper.

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[27] Problem 3.16.\* *Answer: The distance from the center of mass of the earth-sun system to the center of the sun is a fraction of the solar radius. The fraction is ...*

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[28] Problem 3.20.\*\* *(There is no answer to report here.)*

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[29] Problem 3.22.\*\* *Answer: the coordinates  $(x,y,z)$  of the center of mass are ...*

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[30] Problem 3.27.\*\* *Answer: Let  $A$  = the area enclosed by the orbit and  $T$  = the period of revolution. The relation between  $A$  and  $T$  is ...*

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[31] Problem 3.32.\*\* *Answer: The moment of inertia is ...*

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[32] Problem 3.35.\*\* *Answer: The acceleration of the center of mass of the disk is ...*