

### Astronomy 505: Homework #3 (Classical Mechanics)

Fill out this form and turn it in with your homework, to help to track the level of independence of your efforts. For each part of each problem, rank your work roughly according to the scale below. Don't spend a lot of time on this, and remember that you are evaluating the level of independent work and not the accuracy of your solutions.

I do not expect that any of you will rate category-A independence and also achieve A-quality correctness on every problem. Keep in mind that you can need lots of help on part (a) of a problem and still complete part (b) quite independently.

1. (a) (5 pts):  
(b) (5 pts):
2. (a) (6 pts):  
(b) (4 pts):
3. (3 pts):
4. (a) (2 pts):  
(b) (2 pts):
5. (4 pts):
6. (8 pts):
7. (8 pts):

• [A]

- I completed this work entirely on my own, though four of us were working in the same room on this homework set. After I finished my solution, someone else got stuck and I gave them a few hints.
- I worked in a group with one or two other people, and I was personally responsible for our success.
- I read through portions of an appropriate textbook after reading the assignment, taking notes on discussion of related material and a similar worked example.

• [B]

- I talked through the problem with someone, and got some advice on how to think about the key issues.
- I worked in a group with one or two other people; everyone contributed equally.
- I found a solution in a book and used it, but took care to work through the missing steps.
- I worked in a large group; parts of my solution represent my own original thinking, while other parts belong to someone else.

• [C]

- I talked through the problem with an older student who had completed it before. They told me the trick of the solution, and I worked from there.
- I read through a classmate's completed solution, asking questions to make sure that I understood every step. I even found a small error, and we corrected it together. Later I wrote up the solution myself, without assistance. I understand every step of it.

• [D]

- I copied someone else's completed solution. First I read through their work, and I think I understood it. I consulted their paper once or twice during the course of writing my solution.
- I copied a solution from a book that someone else pointed out to me.
- I worked in a large group; my most significant contribution was to pick up the doughnuts and coffee.

• [F]

- I copied someone else's solution blindly, without even reading through it first.
- In place of a solution, I attached a xerox of a \$50 bill to my assignment.