

Name: \_\_\_\_\_

## Nbody Gradesheet

MCS-178

### \_\_\_\_\_ **30 Input and Looping**

- \_\_\_\_\_ [5] does not hard-code the name of the input file
- \_\_\_\_\_ [5] opens and closes a Scanner correctly
- \_\_\_\_\_ [5] opens and closes a FileReader correctly
- \_\_\_\_\_ [5] reads the data file correctly
- \_\_\_\_\_ [5] loops through all the bodies correctly
- \_\_\_\_\_ [5] uses a nested loop to calculate the force between bodies

### \_\_\_\_\_ **20 Correctly apply the formulas for computing**

- \_\_\_\_\_ [5] net forces
- \_\_\_\_\_ [5] accelerations
- \_\_\_\_\_ [5] velocities
- \_\_\_\_\_ [5] positions

### \_\_\_\_\_ **30 Miscellaneous**

- \_\_\_\_\_ [5] positions are updated after all the net forces are computed
- \_\_\_\_\_ [5] draws the background at each iteration
- \_\_\_\_\_ [5] transforms between different coordinate systems correctly
- \_\_\_\_\_ [5] places images at correct locations
- \_\_\_\_\_ [5] plays background music
- \_\_\_\_\_ [5] uses own starfield picture whose size is bigger than the given `starfield.jpg`

### \_\_\_\_\_ **20 Documentation**

- \_\_\_\_\_ [5] completed `readme.txt`
- \_\_\_\_\_ [15] style issues (good comments, meaningful variable names, appropriate indentation, etc.)

### \_\_\_\_\_ **10 Extra credit**

- \_\_\_\_\_ [5] your own universe data file that is interesting
- \_\_\_\_\_ [5] other documented extension to the program

\_\_\_\_\_ **TOTAL**