rho(r) = rob

When r is much larger than ‘
Density decreases with distance in air
Initialize simulation and put in gravity, should settle down to it

Make plot of this with spherical coordinates
But look at how to actually run shock tube

Fluid
Mass density = rho
Velocity components 3
Energy density (E)

Solve for five numbers at every gird point in computational grid
Have to give initial values

Just do one r and 1 r dependence on cartesian

Use 1 grid point theta and 1 in phi

Message passing interface

Make short file of steps

Read and look at history output file
    ten numbers at time stops
    momentum, energy, mass over whole grid
Look at slices
    output from code at one time
    what is value of five basic quantities at every grid point
Go and review python dictionaries
    access columns by name of column
    name of dictionary [‘name of column’]

Make sure to ask questions

Overtime, tidal friction tries to make them spin up or spin down to rotate once per orbit
    also tries to make it much more circular

ANGULAR MOMENTUM IS CONSERVED AND GIVEN TO ANOTHER
    from earth to mo

Angular momentum

$L = mvr$

R goes to positive power

If earth spins down, incrresased angular momentum of moons orbit —> radius increases

Out of earth’s spin and transfer it to orbit

Know this because laser shoots to moon, rate is speed of light, distance can be solved by knowing the period

Angular momentum = r x v

Thumb is direction of th

Angular momentum = r^1/2

Angular momentum in the solar system in the orbit of Jupiter

Alll mass goes to center, all angular momentum goes outside

Mass spiraling into center because youre sharing it out to larger radial disks