Enter Code in txt file:

1 4 45.53 au

First number: object 1, object 2, both (Enter 1, 2, 3)

Second Number: valType Codes: see below

Value: Enter value

Units: Enter units, see below

valType Codes:

Distance to Star 0

Stellar Radius 1

Maximum Wavelength 2

Semi-Major Axis 3

Parallax Angle 0

Angular Size of Object 1

Mass 0

Escape Velocity 0

Orbital Velocity 2

Luminosity 0

Brightness 0

Apparent Magnitude 1

Absolute Magnitude 2

Surface Temperature 3

Gravitational Acceleration 5

Kinetic Energy 6

Angular Momentum 8

Flux 9

Total Mass of System 0

Distance Between Objects 1

Period of Orbit 2

Force of Gravity between Objects 3

Potential Energy of System 4

Acceptable Length Units: m, au, ly, pc, a (angstroms), nm, rs (solar radii)

Acceptable Angle Units: deg, as, rad

Acceptable Time Units: s, min, hr, day, yr

Acceptable Mass Units: kg, sm (solar masses)

Acceptable Power Units: w, sl

Acceptable Flux Units: w/m2

Acceptable Magnitude Units: magnitudes

Acceptable Temperature Units: K

Acceptable Force Units: N

Acceptable Acceleration Units: m/s2

Acceptable Energy Units: J

Assumptions:

Circular Orbits (No vis-viva)

When you need to use Kepler’s Laws, use total Mass, not mass 2 or mass1

Main Sequence (For Mass Luminosity Relation)