

## Python Assignment: Astronomical Orbits

### Due Friday December 12

By now you should have written a Python program that simulates the motion of the earth about a stationary sun. Your final assignment is to simulate three different orbits:

1. You should simulate the circular orbit of the earth around the sun,
2. You should simulate an orbit of an earth-like planet with an energy  $E$  that satisfies the condition  $E_{\text{earth}} < E < 0$ ,
3. You should simulate an orbit of an earth-like planet with an energy  $E$  that satisfies the condition  $E > 0$ .

You can do this with three programs, or you can do this with commented lines within a single program.