Izaac Facundo

imf339

HW2

4.

a = 5.5300

e = 0.3501

i = 0.7854

raan = 1.5708

argument or periapsis = 2.1261

true anomaly = 0.0308

5. Graphical user interface

Description automatically generated with medium confidence

6.

Chart

Description automatically generated

This energy graph makes sense. The change is within my error margin of 1e-10.

7.

Chart

Description automatically generated with medium confidence

This graph matches my predictions because all of the orbital elements (except true anomaly) stay constant over the whole period. This is because the propagator has no perturbations (like J2) in it.