

Izaak Facundo

imf339

HW2

4.

$a = 5.5300$

$e = 0.3501$

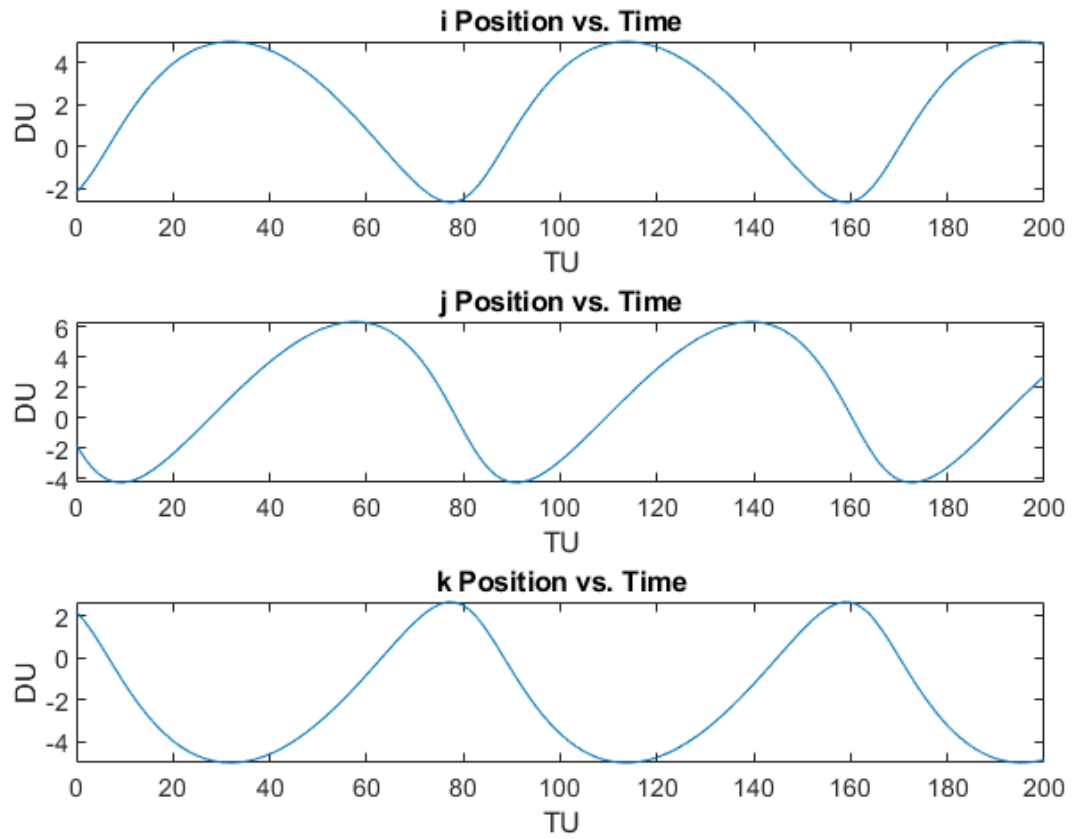
$i = 0.7854$

$\text{raan} = 1.5708$

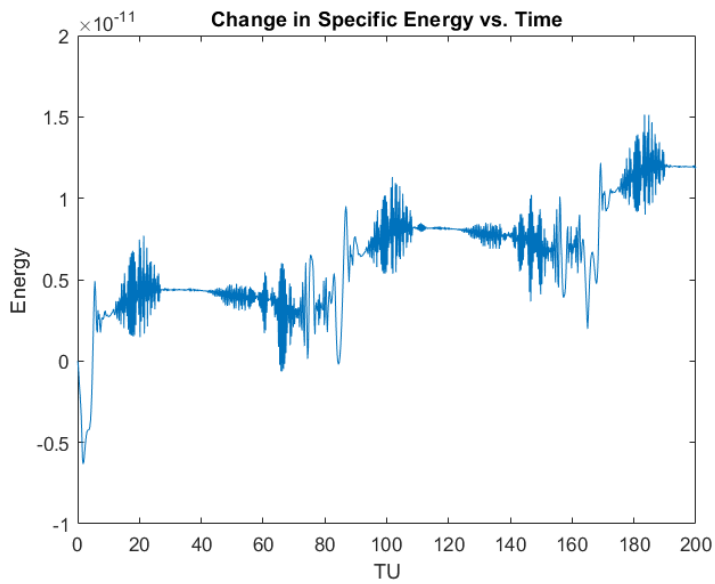
$\text{argument or periapsis} = 2.1261$

$\text{true anomaly} = 0.0308$

5.

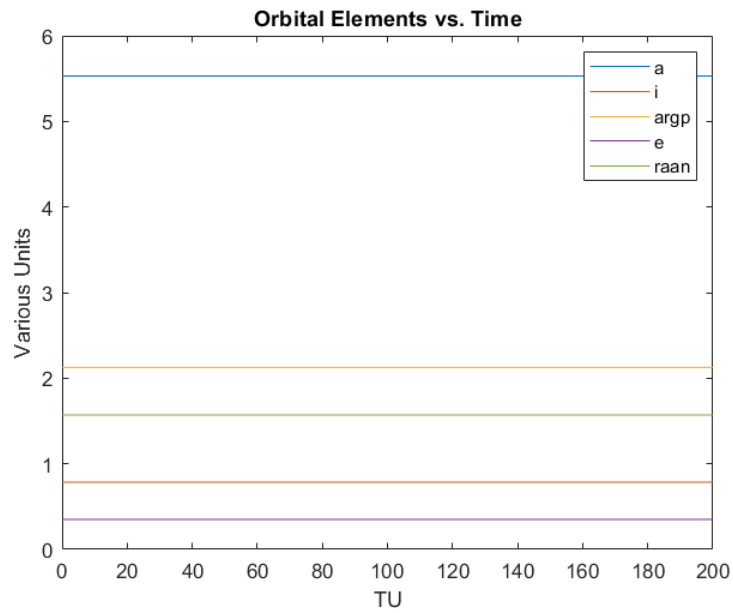


6.



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

7.



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.