

Data Set 0
 ['77.70', '-68.50', '50', '2454154.6376157']
 Site Info:
 Latitude(deg): 1.356120828799594 Longitude(deg):
 -1.1955505376161157 Altitude(m): 0.05
 JD: 2454154.6376157
 Sat 1001.0 Info:
 Range(km): 2121.418 Azm(deg): 0.33092489815363685
 Elv(deg): 0.6169861078847595
 Range Rate(km/s): -3.3204 Azm Rate(deg/s):
 -0.0013357004765512605 Elv Rate(deg/s): 0.003554712087536851
 Semi Major Axis in Kilometers:
 13365.4143648
 Eccentricity:
 0.499084782446
 Eccentricity Vector:
 [0.04506589 -0.41485219 0.27377426]
 Inclination in Degrees:
 93.4987341551
 RAAN in Degrees:
 278.498695561
 Argument of Periapsis in Degrees:
 33.3379944379
 True Anomaly in Degrees:
 54.4300879778
 Semi Latus Rectum in Kilometers:
 10036.2818402
 Radius of Periapsis in Kilometers:
 6694.93944422
 Radius of Apoapsis in Kilometers:
 20035.8892853
 Line of Nodes Vector in Kilometers:
 [9329.98725535 -62438.12641061 0.]
 Orbit Period in Seconds:
 15377.4594415
 Sat Radius Vector (ECI):
 [-424.33834223228803, -369.6873609048148, 7757.773624260728]
 Sat Velocity Vector (ECI):
 [-1.35952522 7.91179967 2.86776265]

Data Set 2
 ['77.70', '-68.50', '50', '2454154.6377315']
 Site Info:
 Latitude(deg): 1.356120828799594 Longitude(deg):
 -1.1955505376161157 Altitude(m): 0.05
 JD: 2454154.6377315
 Sat 1001.0 Info:
 Range(km): 2089.442 Azm(deg): 0.3169901894057141

Elv(deg): 0.6529381451465907
Range Rate(km/s): -3.0698 Azm Rate(deg/s):
-0.00145892072174206 Elv Rate(deg/s): 0.0036325537721757983
Semi Major Axis in Kilometers:
13364.7348919
Eccentricity:
0.499051766851
Eccentricity Vector:
[0.0450339 -0.41482195 0.27376517]
Inclination in Degrees:
93.4989794632
RAAN in Degrees:
278.495046481
Argument of Periapsis in Degrees:
33.3392455891
True Anomaly in Degrees:
55.0257419209
Semi Latus Rectum in Kilometers:
10036.2120368
Radius of Periapsis in Kilometers:
6695.04033062
Radius of Apoapsis in Kilometers:
20034.4294532
Line of Nodes Vector in Kilometers:
[9325.97577488 -62438.48701694 0.]
Orbit Period in Seconds:
15376.2868142
Sat Radius Vector (ECI):
[-437.96452923138088, -290.54845203529828, 7786.12191184315]
Sat Velocity Vector (ECI):
[-1.35538351 7.9146399 2.80206586]

Data Set 4

['77.70', '-68.50', '50', '2454154.6377315']
Site Info:
Latitude(deg): 1.356120828799594 Longitude(deg):
-1.1955505376161157 Altitude(m): 0.05
JD: 2454154.6377315
Sat 1001.0 Info:
Range(km): 2060.022 Azm(deg): 0.30174648371879564
Elv(deg): 0.6896371833282754
Range Rate(km/s): -2.8096 Azm Rate(deg/s):
-0.0015985470619016065 Elv Rate(deg/s): 0.0037034141398067676
Semi Major Axis in Kilometers:
13362.235773
Eccentricity:
0.498950652074
Eccentricity Vector:

[0.04468023 -0.41478375 0.27369668]
Inclination in Degrees:
93.4992377478
RAAN in Degrees:
278.447336967
Argument of Periapsis in Degrees:
33.3374633292
True Anomaly in Degrees:
55.6203546564
Semi Latus Rectum in Kilometers:
10035.6837505
Radius of Periapsis in Kilometers:
6695.13952088
Radius of Apoapsis in Kilometers:
20029.332025
Line of Nodes Vector in Kilometers:
[9273.73412143 -62444.5702418 0.]
Orbit Period in Seconds:
15371.9741166
Sat Radius Vector (ECI):
[-451.70541248914083, -211.05601659380829, 7813.8171849856672]
Sat Velocity Vector (ECI):
[-1.34503629 7.91764057 2.73659237]

Data Set 6
['77.70', '-68.50', '50', '2454154.6379630']
Site Info:
Latitude(deg): 1.356120828799594 Longitude(deg):
-1.1955505376161157 Altitude(m): 0.05
JD: 2454154.637963
Sat 1001.0 Info:
Range(km): 2033.251 Azm(deg): 0.285020993496934
Elv(deg): 0.7270064279427261
Range Rate(km/s): -2.5402 Azm Rate(deg/s):
-0.001757197490907891 Elv Rate(deg/s): 0.003766071459953364
Semi Major Axis in Kilometers:
13362.3894214
Eccentricity:
0.498952174548
Eccentricity Vector:
[0.04494406 -0.41475081 0.27370618]
Inclination in Degrees:
93.4996355632
RAAN in Degrees:
278.484214927
Argument of Periapsis in Degrees:
33.3386722904
True Anomaly in Degrees:

56.2080948952
Semi Latus Rectum in Kilometers:
10035.7788467
Radius of Periapsis in Kilometers:
6695.19616244
Radius of Apoapsis in Kilometers:
20029.5826804
Line of Nodes Vector in Kilometers:
[9313.96430847 -62438.85766042 0.]
Orbit Period in Seconds:
15372.2392541
Sat Radius Vector (ECI):
[-465.10184042823391, -132.20807851688278, 7840.861832425544]
Sat Velocity Vector (ECI):
[-1.34636574 7.91821267 2.6718953]

Data Set 8
['77.70', '-68.50', '50', '2454154.6380787']
Site Info:
Latitude(deg): 1.356120828799594 Longitude(deg):
-1.1955505376161157 Altitude(m): 0.05
JD: 2454154.6380787
Sat 1001.0 Info:
Range(km): 2009.217 Azm(deg): 0.26660427922988983
Elv(deg): 0.7649568671980908
Range Rate(km/s): -2.2624 Azm Rate(deg/s):
-0.0019383626672649025 Elv Rate(deg/s): 0.003818431337513194
Semi Major Axis in Kilometers:
13360.7492736
Eccentricity:
0.498882541238
Eccentricity Vector:
[0.04489464 -0.41470007 0.27366423]
Inclination in Degrees:
93.5001299199
RAAN in Degrees:
278.47849649
Argument of Periapsis in Degrees:
33.3381760231
True Anomaly in Degrees:
56.7936101335
Semi Latus Rectum in Kilometers:
10035.4753578
Radius of Periapsis in Kilometers:
6695.30472315
Radius of Apoapsis in Kilometers:
20026.1938241
Line of Nodes Vector in Kilometers:

[9307.58686867 -62438.80986726 0.]
Orbit Period in Seconds:
15369.409075
Sat Radius Vector (ECI):
[-478.61446649794095, -53.016099083146059, 7867.2644986686046]
Sat Velocity Vector (ECI):
[-1.34169942 7.91896321 2.60735404]