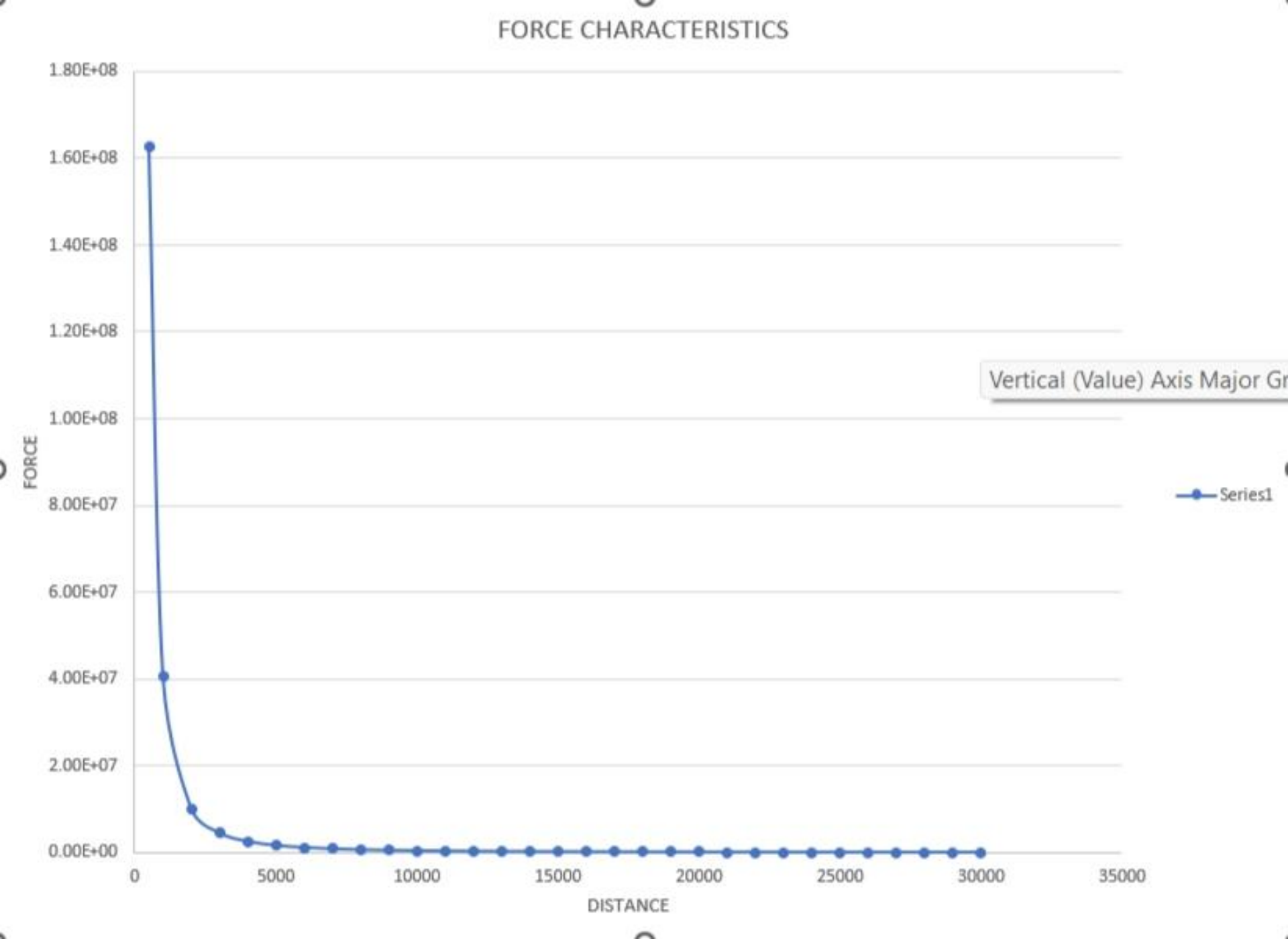
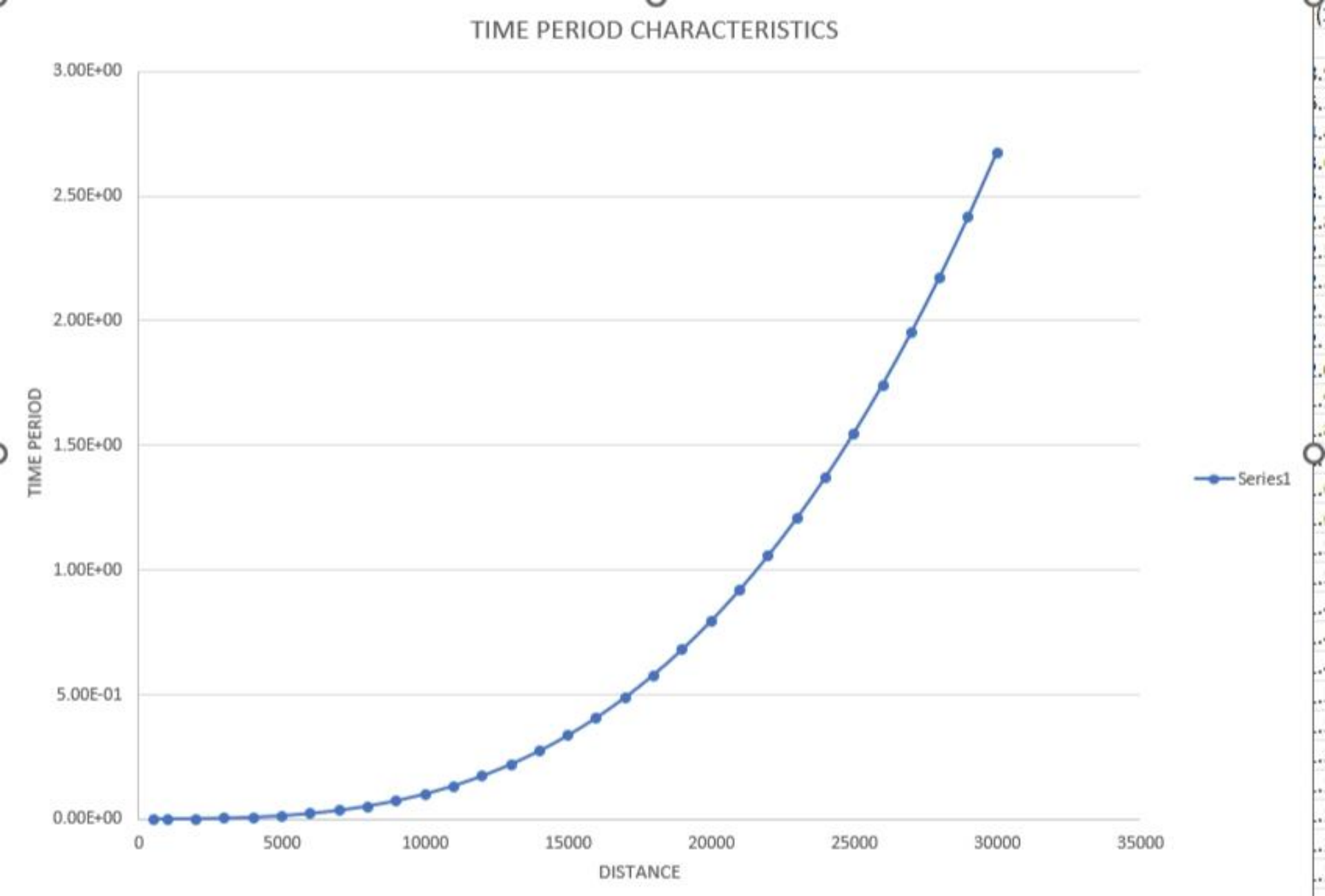
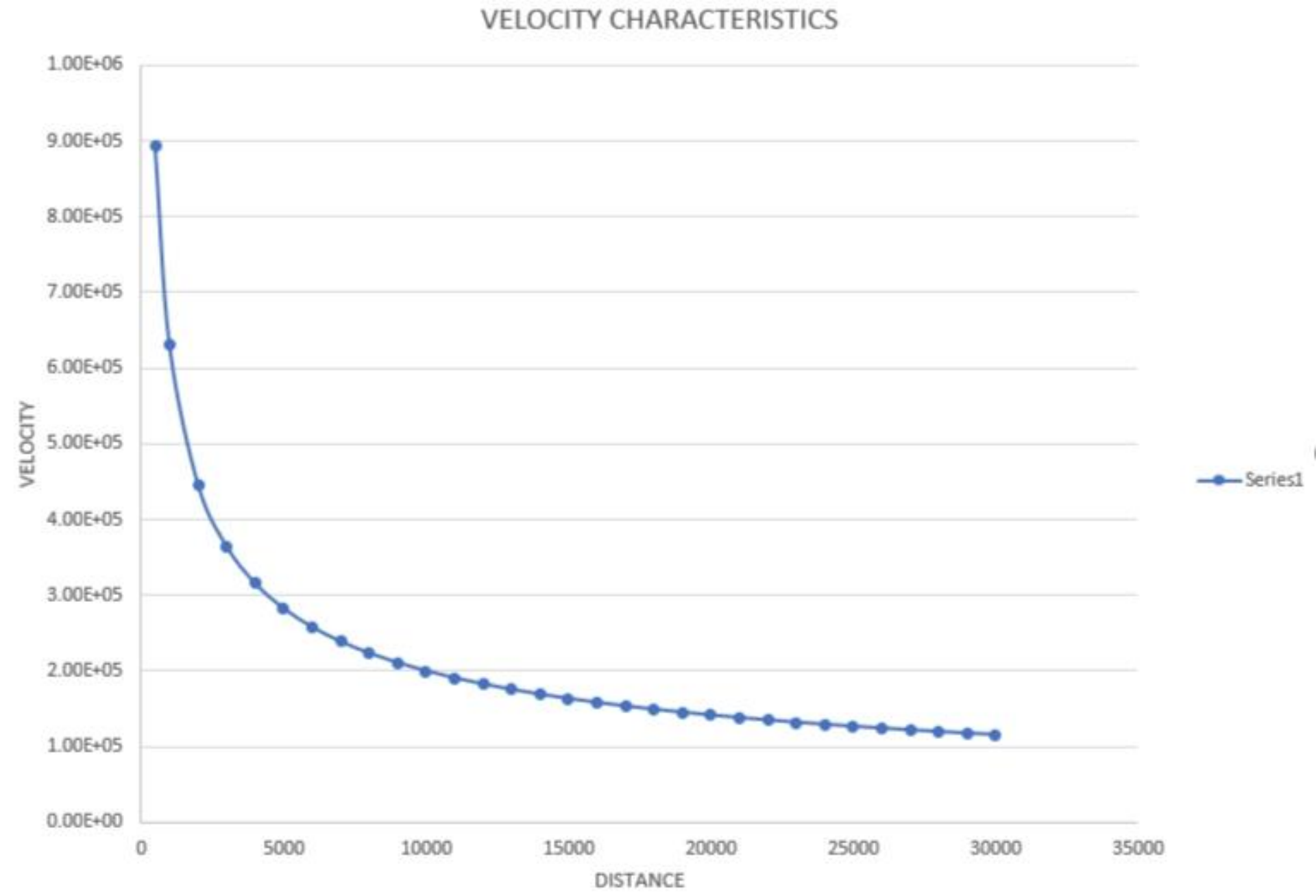
	A	B	C	D	E	F	G	H	I	J	K
1	Variables				Radius(meters)	FORCE		PERIOD OF FLIGHT		VELOCITY	
2	1	Dependent	F			F=GMeMs/R^2		P^2=((4*(3.14)^2)/GMe)*R^3		V=(GMe/R)^(1/2)	
3	2	Independent	R	6.37E+06							
4	3	Constants	G	6.67E-11	500	1.62E+08		1.24E-05		8.92E+05	
5			Me	5.97E+24	1000	4.06E+07		9.90E-05		6.31E+05	
6			Ms	1.02E-01	2000	1.02E+07		7.92E-04		4.46E+05	
7					3000	4.51E+06		2.67E-03		3.64E+05	
8					4000	2.54E+06		6.34E-03		3.16E+05	
9					5000	1.62E+06		1.24E-02		2.82E+05	
10					6000	1.13E+06		2.14E-02		2.58E+05	
11					7000	8.29E+05		3.40E-02		2.39E+05	
12					8000	6.35E+05		5.07E-02		2.23E+05	
13					9000	5.01E+05		7.22E-02		2.10E+05	
14					10000	4.06E+05		9.90E-02		2.00E+05	
15					11000	3.36E+05		1.32E-01		1.90E+05	
16					12000	2.82E+05		1.71E-01		1.82E+05	
17					13000	2.40E+05		2.18E-01		1.75E+05	
18					14000	2.07E+05		2.72E-01		1.69E+05	
19					15000	1.81E+05		3.34E-01		1.63E+05	
20					16000	1.59E+05		4.06E-01		1.58E+05	
21					17000	1.41E+05		4.87E-01		1.53E+05	
22					18000	1.25E+05		5.78E-01		1.49E+05	
23					19000	1.13E+05		6.79E-01		1.45E+05	
24					20000	1.02E+05		7.92E-01		1.41E+05	
25					21000	9.21E+04		9.17E-01		1.38E+05	
26					22000	8.39E+04		1.05E+00		1.35E+05	
27					23000	7.68E+04		1.21E+00		1.32E+05	
28					24000	7.05E+04		1.37E+00		1.29E+05	
29					25000	6.50E+04		1.55E+00		1.26E+05	
30					26000	6.01E+04		1.74E+00		1.24E+05	
31					27000	5.57E+04		1.95E+00		1.21E+05	
32					28000	5.18E+04		2.17E+00		1.19E+05	
33					29000	4.83E+04		2.42E+00		1.17E+05	
34					30000	4.51E+04		2.67E+00		1.15E+05	
35											


FORCE CHARACTERISTICS
1.80E+08
1.60E+08
1.40E+08
1.20E+08
1.00E+08
8.00E+07
6.00E+07
4.00E+07
2.00E+07
0.00E+00
FORCE
0
5000
10000
15000
20000
25000
30000
35000
DISTANCE
Vertical (Value) Axis Major Gr
Series1

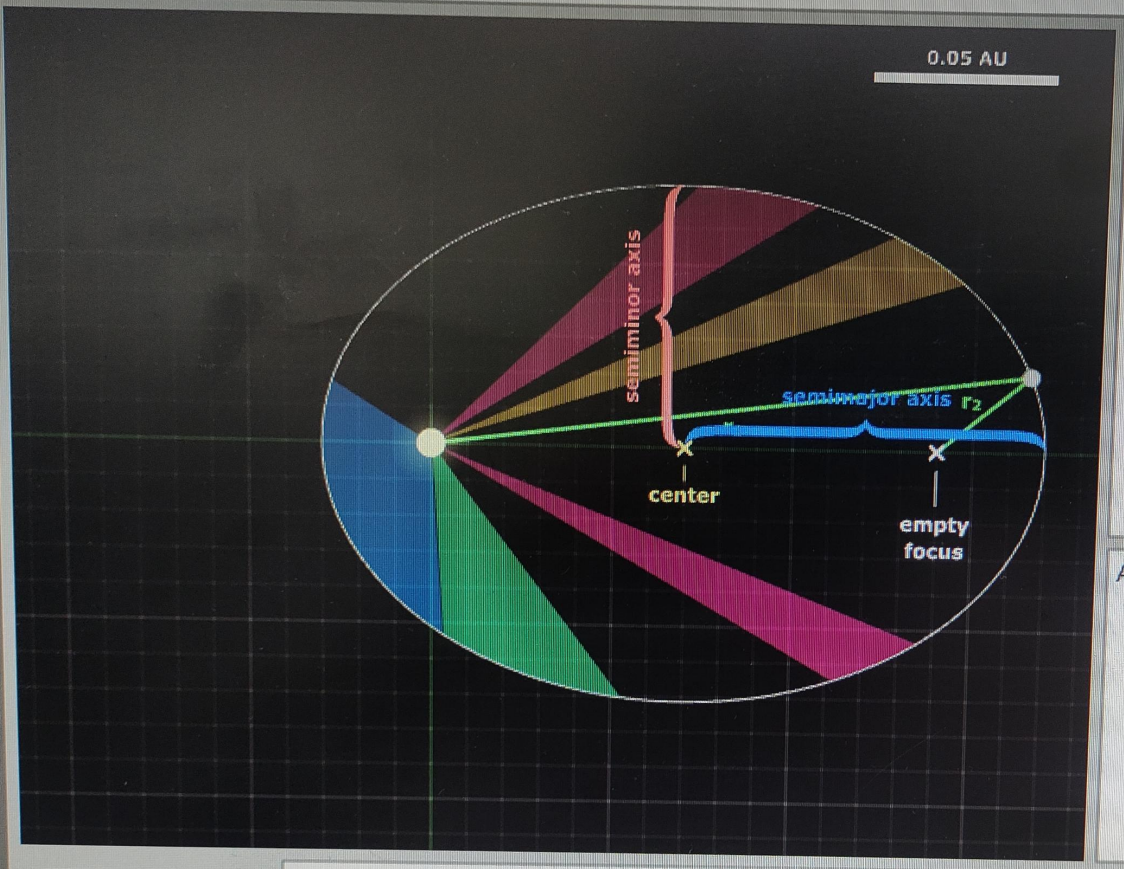

TIME PERIOD CHARACTERISTICS
3.00E+00
2.50E+00
2.00E+00
1.50E+00
1.00E+00
5.00E-01
0.00E+00
TIME PERIOD
0
5000
10000
15000
20000
25000
30000
35000
DISTANCE
Series1


VELOCITY CHARACTERISTICS
1.00E+06
9.00E+05
8.00E+05
7.00E+05
6.00E+05
5.00E+05
4.00E+05
3.00E+05
2.00E+05
1.00E+05
0.00E+00
VELOCITY
0
5000
10000
15000
20000
25000
30000
35000
DISTANCE
Series1

.unl.edu/classaction/animations/renaissance/kepler.html

Planetary Orbit Simulator

reset help about



Orbit Settings

set parameters for: Earth OK

semimajor axis (AU) 0.100

eccentricity 0.700

Animation Controls

pause animation

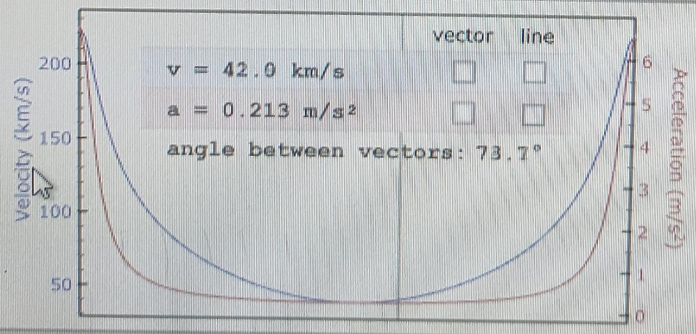
animation rate (yrs/s) 0.0020

Kepler's 1st Law

Kepler's 2nd Law

Kepler's 3rd Law

Newtonian Features



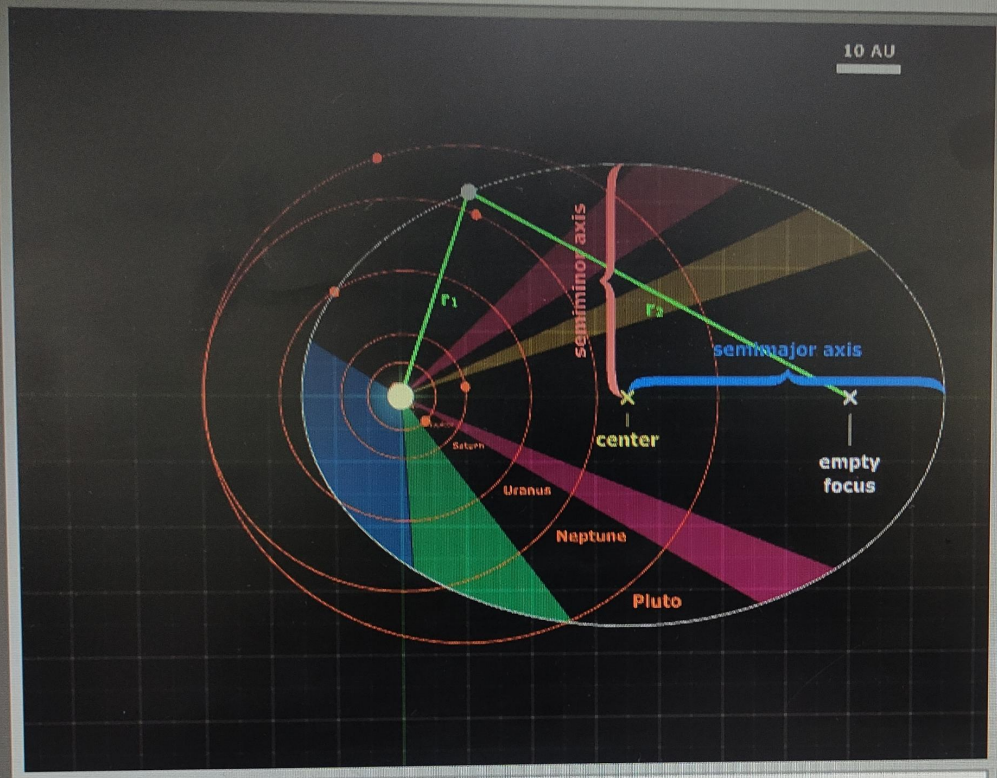
Visualization Options

- [x] show solar system orbits
- [x] show solar system planets
- [x] label the solar system orbits
- [x] show grid

clear optional features

Planetary Orbit Simulator

reset help about



Orbit Settings

set parameters for: Earth OK

semimajor axis (AU) 50.0

eccentricity 0.700

Animation Controls

pause animation

animation rate (yrs/s) 0.0020

Kepler's 1st Law

Kepler's 2nd Law

Kepler's 3rd Law

Newtonian Features

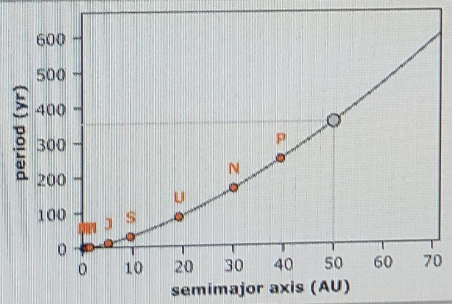
$P^2 = a^3$

$^2(354) = (50.0)^3$

$= 125000$

plot type:

- (•) linear
- ( ) logarithmic



Visualization Options

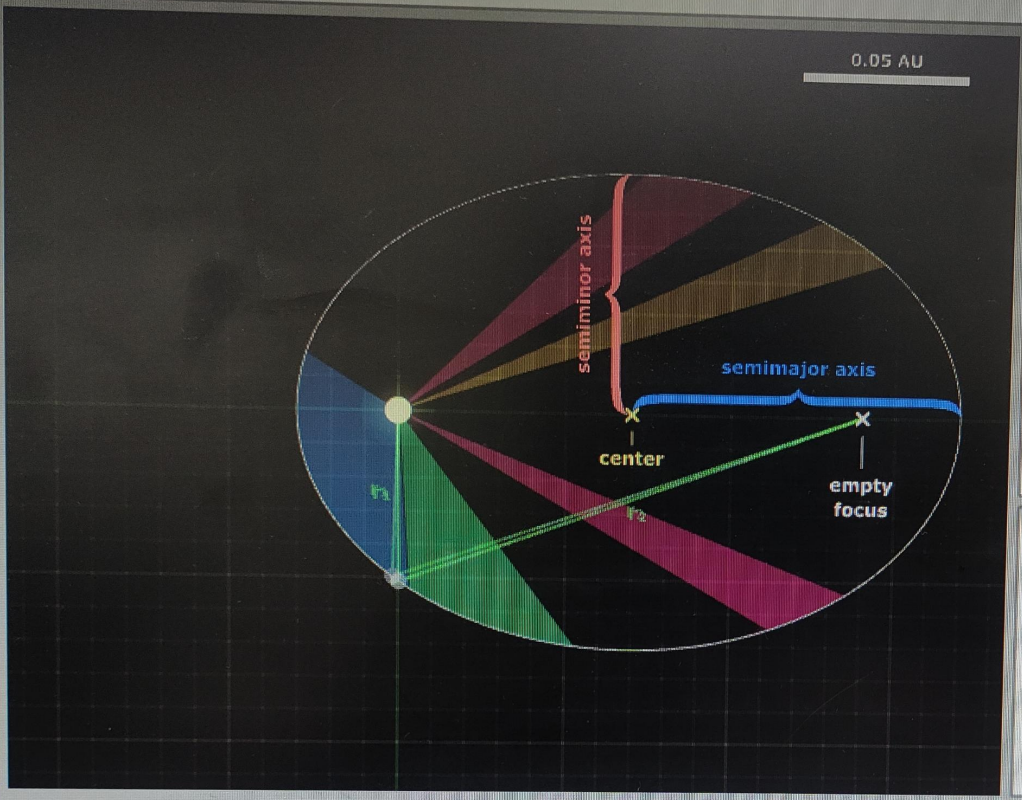
- [x] show solar system orbits
- [x] show solar system planets
- [x] label the solar system orbits
- [x] show grid

clear optional features

Planetary Orbit Simulator (NAAP)

Planetary Orbit Simulator

reset help about



Orbit Settings

set parameters for: Earth OK

semimajor axis (AU) 0.100

eccentricity 0.700

Animation Controls

pause animation

animation rate (yrs/s) 0.0020

Kepler's 1st Law

Kepler's 2nd Law

Kepler's 3rd Law

Newtonian Features

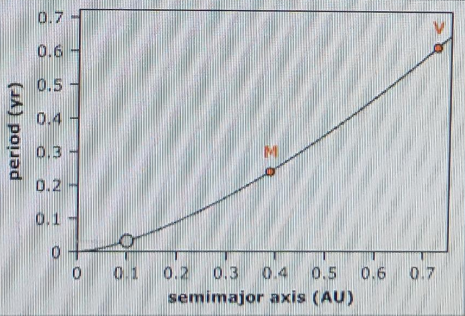
$P^2 = a^3$

$(0.0316)^2 = (0.100)^3$

$= 0.00100$

plot type:

- (•) linear
- ( ) logarithmic



Visualization Options

- [x] show solar system orbits
- [x] show solar system planets
- [x] label the solar system orbits
- [x] show grid

clear optional features

Planetary Orbit Simulator (NAAP)