Nurunnisa Fathanah Dz. S. B.

D121211002

Metode Komputasi Numerik Kelas A

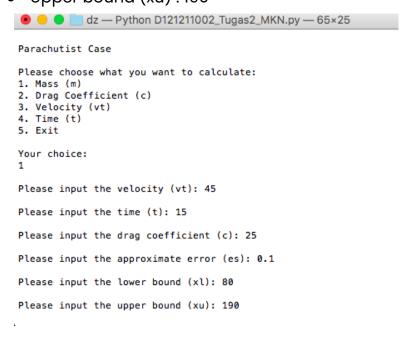
- 1. Menu 1: Pilihan mengenai apa yang ingin dihitung.
- 2. Input:1

Menghitung Massa

3. Memasukkan nilai- nilai yang diminta.

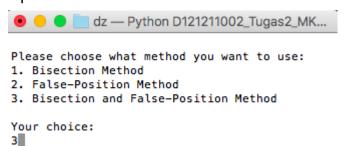
Input:

- Velocity: 45
- Time: 15
- Drag Coefficient: 25
- Approximate Error: 0.1
- Lower bound (xl):80
- Upper bound (xu): 190

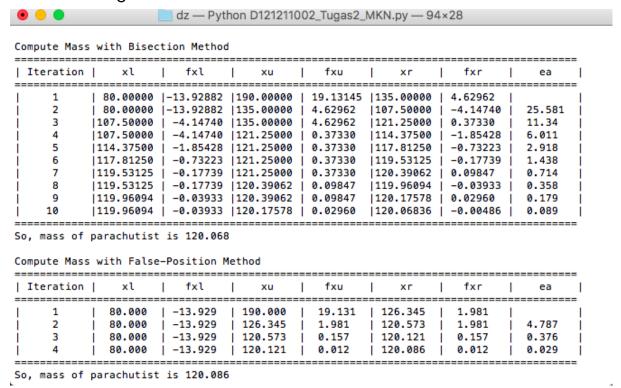


4. Menu 2: Pilihan mengenai metode yang akan digunakan.

Input: 3

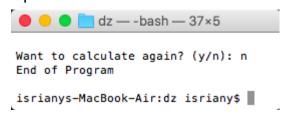


5. Hasil Perhitungan



6. Pilihan untuk menghitung kembali

Input: n



7. Tampilan keseluruhan





dz — -bash — 116×64

Parachutist Case

Please choose what you want to calculate:

- 1. Mass (m)
- 2. Drag Coefficient (c)
- 3. Velocity (vt) 4. Time (t)
- 5. Exit

Your choice:

Please input the velocity (vt): 45

Please input the time (t): 15

Please input the drag coefficient (c): 25

Please input the approximate error (es): 0.1

Please input the lower bound (xl): 80

Please input the upper bound (xu): 190

Please choose what method you want to use:

- Bisection Method
- False-Position Method
- 3. Bisection and False-Position Method

Your choice:

Compute Mass with Bisection Method

	Iteration	xl	fxl	xu	fxu	xr	fxr	ea				
=									=			
	1	80.00000	-13.92882	190.00000	19.13145	135.00000	4.62962		1			
ı	2	80.00000	-13.92882	135.00000	4.62962	107.50000	-4.14740	25.581	i			
	3	107.50000	-4.14740	135.00000	4.62962	121.25000	0.37330	11.34	Ì			
	4	107.50000	-4.14740	121.25000	0.37330	114.37500	-1.85428	6.011				
ı	5	114.37500	-1.85428	121.25000	0.37330	117.81250	-0.73223	2.918	İ			
ı	6	117.81250	-0.73223	121.25000	0.37330	119.53125	-0.17739	1.438	İ			
ı	7	119.53125	-0.17739	121.25000	0.37330	120.39062	0.09847	0.714	İ			
ı	8	119.53125	-0.17739	120.39062	0.09847	119.96094	-0.03933	0.358	İ			
ı	9	119.96094	-0.03933	120.39062	0.09847	120.17578	0.02960	0.179	İ			
ı	10	119.96094	-0.03933	120.17578	0.02960	120.06836	-0.00486	0.089	İ			

So, mass of parachutist is 120.068

Compute Mass with False-Position Method

1	Iteration		xl	-	fxl	I	xu	1	fxu	-	xr	-	fxr	-1	ea	-1
===				===		==		===		==						=.
	1		80.000		-13.929		190.000		19.131		126.345		1.981			
1	2	1	80.000		-13.929		126.345	İ	1.981	ı	120.573	ı	1.981		4.787	ı
	3		80.000		-13.929		120.573		0.157		120.121		0.157		0.376	
İ	4	İ	80.000	İ	-13.929	İ	120.121	İ	0.012	İ	120.086	İ	0.012	İ	0.029	İ

So, mass of parachutist is 120.086

Want to calculate again? (y/n): n End of Program