

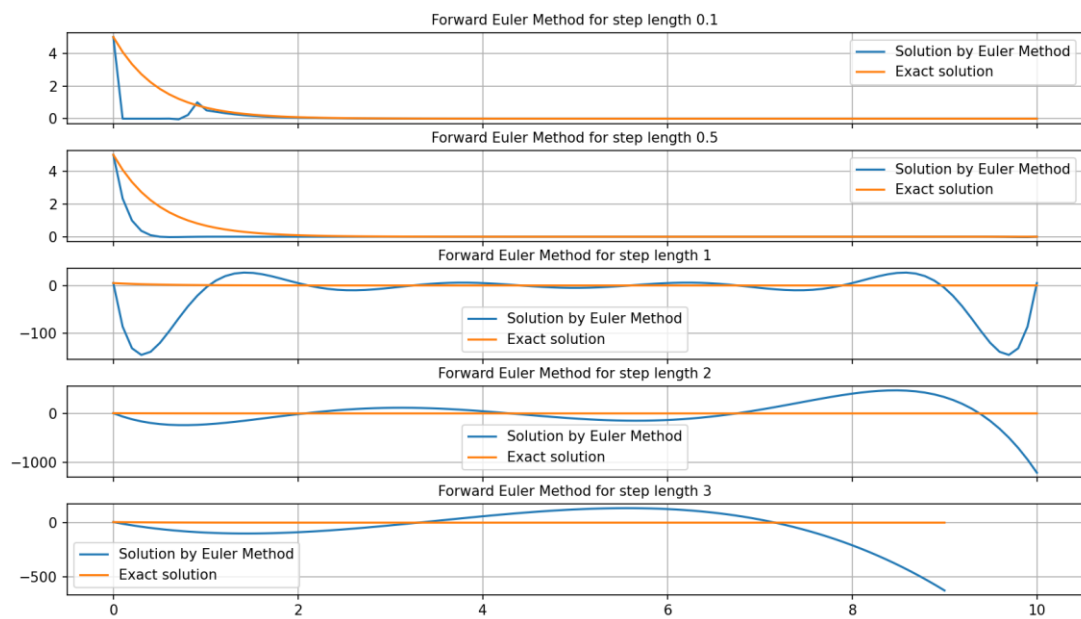
Report for Coding Assignment-6

Computational Methods & Applications

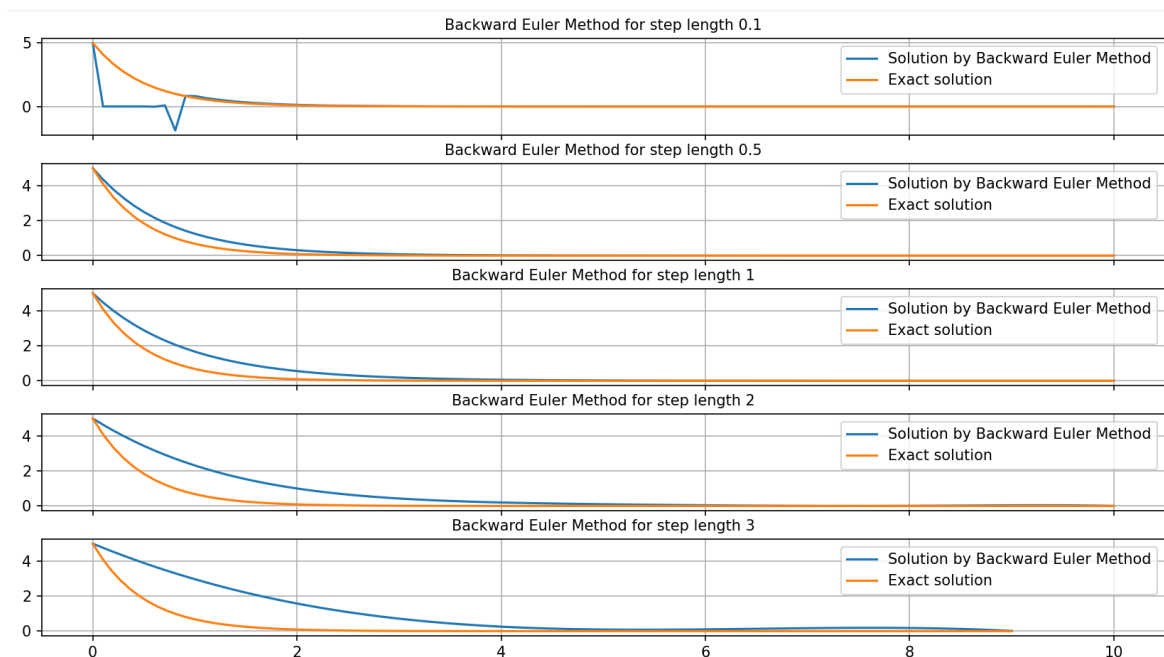
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Q.1) Output:



Q.2) Output:



Q.3)Output:

I have understood the theory of simple gravity pendulum and mathematical derivations from following below site:

[https://www.isical.ac.in/~arnabc/numana/diff1.html#:~:text=In%20our%20pendulum%20example%20we,t0\)%3Dy0.](https://www.isical.ac.in/~arnabc/numana/diff1.html#:~:text=In%20our%20pendulum%20example%20we,t0)%3Dy0.)

(To see the animation of gravity pendulum run the code)

Q.4)Output:

```
The time period of the limit cycle for mu = 2 is 7.615230460921844
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