

Lab4-TRAPEZOIDAL RULE ERROR ANALYSIS

October 13, 2023

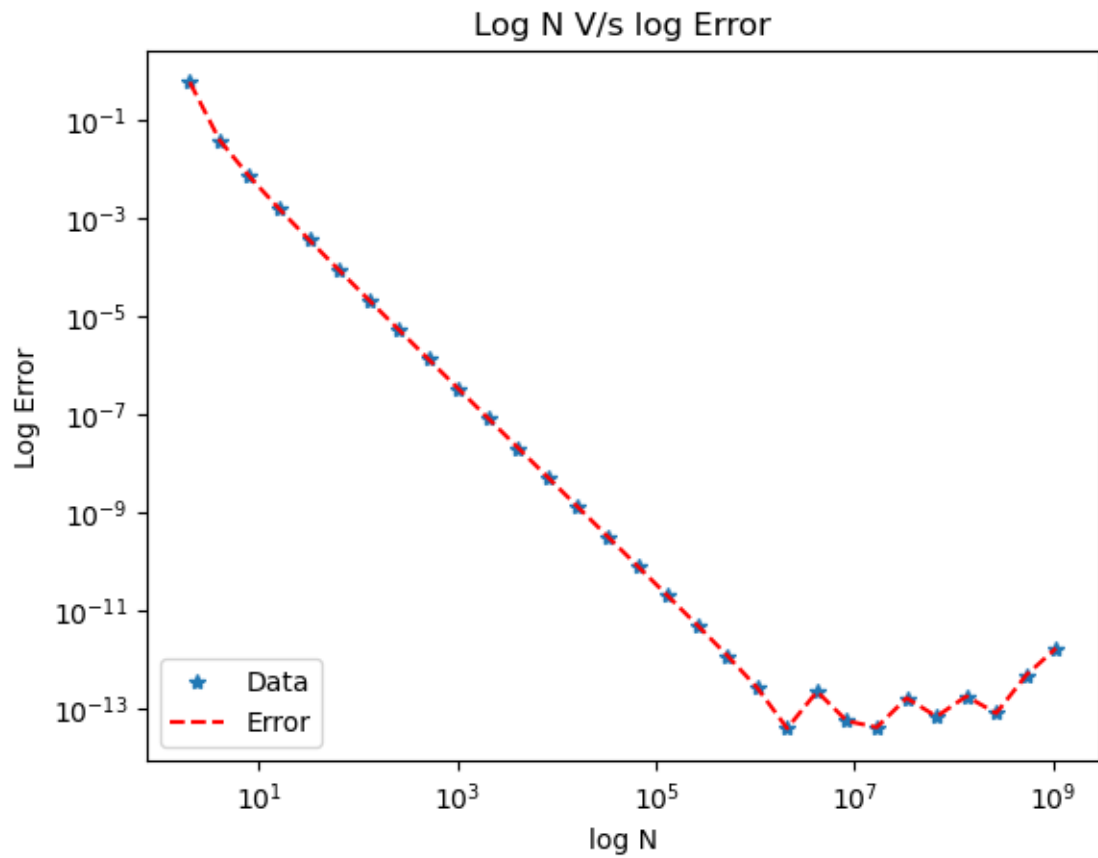
```
[1]: import numpy as np
import matplotlib.pyplot as plt

data = np.loadtxt('trapfile.dat') # Loading the data from the .dat file to
    ↪program

# Separating the data as x and y columns
N = data[:,0]
Error = data[:,1]

# Creating a simple plot
plt.figure()
plt.loglog(N,Error, '*',label='Data')
plt.loglog(N,Error, 'r--',label='Error')
plt.xlabel('log N')
plt.ylabel('Log Error')
plt.title('Log N V/s log Error')
plt.legend(loc=3)

plt.show() # Show the plot
plt.savefig("dataverror.jpg",bbox_inches="tight") # Save the plot as an image
    ↪file
```



<Figure size 640x480 with 0 Axes>

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