Untitled

December 27, 2024
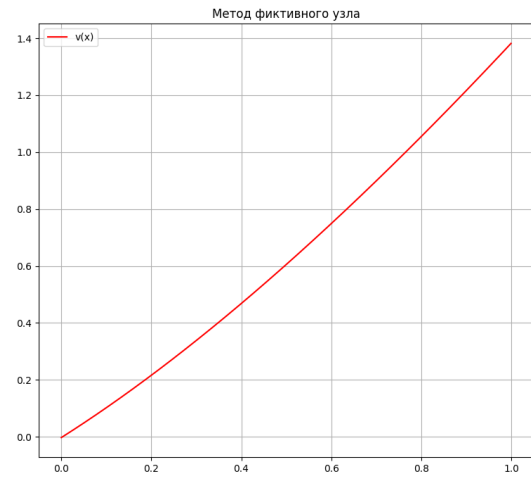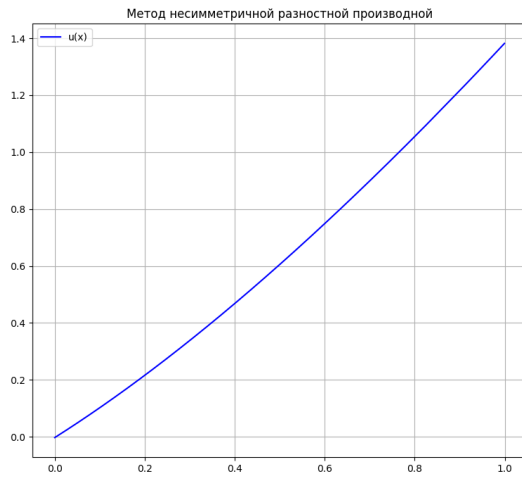
```python
[2]: import numpy as np
import matplotlib.pyplot as plt
file_path = "/home/ome123/CLionProjects/task4/cmake-build-debug/result_u.txt" ␣
 ↪#
with open(file_path, 'r') as file:
    x_data = file.readline().strip().split()
    u_data = file.readline().strip().split()
    v_data = file.readline().strip().split()

file_path1 = "/home/ome123/CLionProjects/task4/cmake-build-debug/result_v.txt" ␣
 ↪#
with open(file_path1, 'r') as file:
    x1_data = file.readline().strip().split()
    v_data = file.readline().strip().split()
#                        numpy
x = np.array(x_data, dtype=float)
y = np.array(u_data, dtype=float)
v = np.array(v_data, dtype=float)

fig, (ax1, ax2) = plt.subplots(1, 2, figsize=(20, 8))  # 3    , 1

#
ax1.plot(x, y, color='blue', label='u(x)')
ax1.set_title('                       ')
ax1.legend()
ax1.grid(True)

#
ax2.plot(x, v, color='red', label='v(x)')
ax2.set_title('            ')
ax2.legend()
ax2.grid(True)
```

Метод несимметричной разностной производной · Метод фиктивного узла

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