Try plotting the function

Use an interval of say $[0, 1] \times [0, 1]$ to plot

$$g(a, b) = -\log(1 - a - b) - \log(a) - \log(b)$$

```
import numpy as np
import matplotlib.pyplot as plt
from mpl_toolkits.mplot3d import axes3d
%matplotlib inline

fig = plt.figure()
ax = fig.gca(projection="3d")

ax.plot_surface()
```

or

```
plt.axis("equal")
plt.contour()
```

may be helpful.

Then run a few steps of Newton's method. What does it converge to?