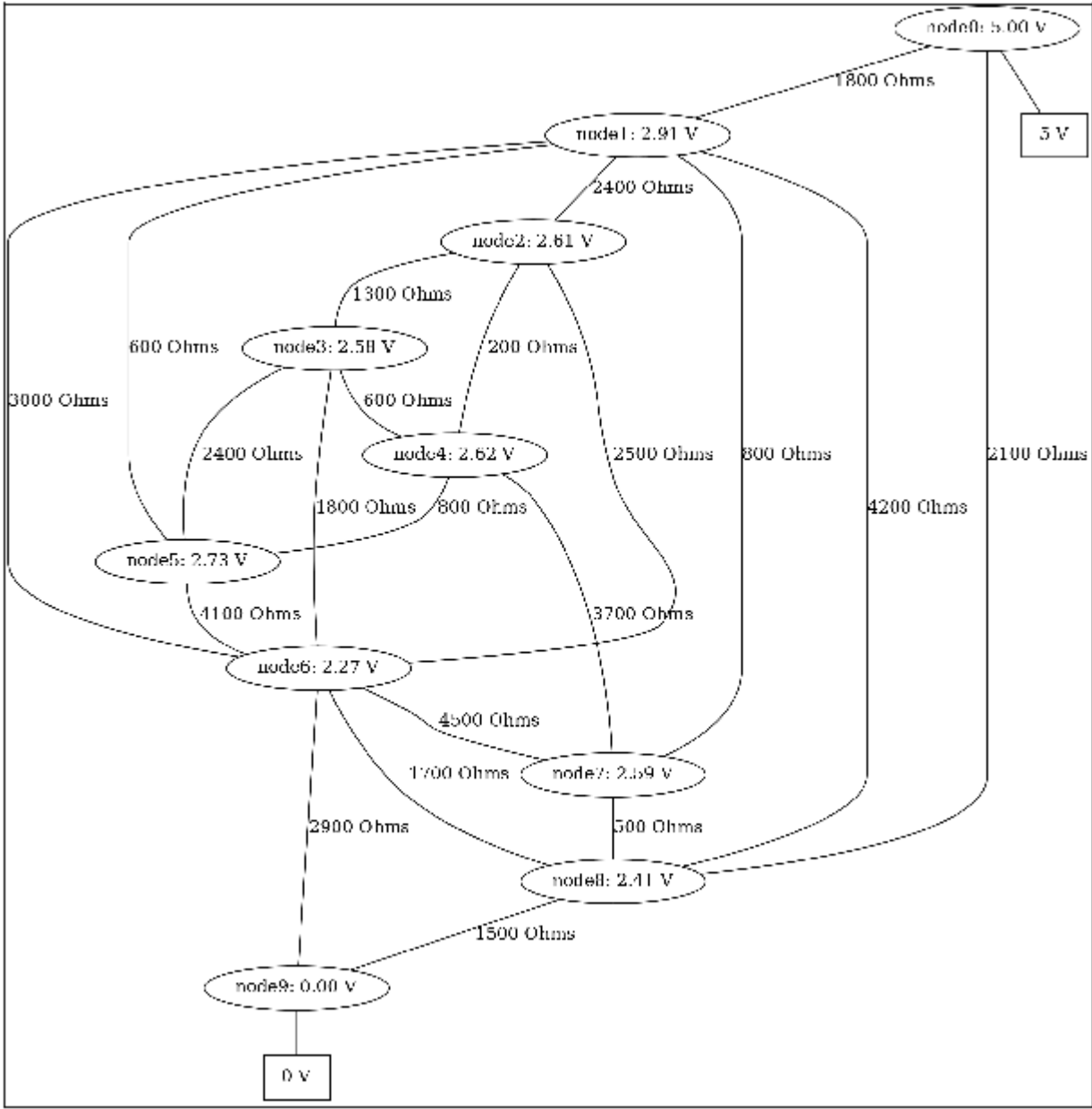


Figure2



The following code is a valid answer:

```
import numpy as np
import numpy.linalg as la

def set_up_linear_system(network, volt):
    n = nnodes
    mat = np.zeros((n, n))
    rhs = np.zeros(n)
    for n1 in range(len(network)):
        connections = network[n1]
        for n2, item in connections.items():
            resistance = item
            mat[n1, n2] -= 1/resistance
            mat[n2, n1] -= 1/resistance
            mat[n1, n1] += 1/resistance
            mat[n2, n2] += 1/resistance

    network_mat = mat.copy()

    for node_nr, voltage in volt.items():
        mat[node_nr] = 0
        mat[node_nr, node_nr] = 1
        rhs[node_nr] = voltage

    return network_mat, mat, rhs

network_mat, mat, rhs = set_up_linear_system(circuit, fixed_voltages)
voltages = la.solve(mat, rhs)

#plot_circuit(circuit, fixed_voltages, voltages)
#import matplotlib.pyplot as plt
#plt.show()
```