Question 1 part a

This code was implemented to solve a somewhat complicated linear system equation for the

sake of convenience and effective utilization of useful software.

```
clear all; close all; clc

% Defining the system equations
syms l1 l2 l3
eqn1 = -1/5*l1 - 6*sqrt(5)/25*l2 - 3*sqrt(5)/25*l3 == 0;
eqn2 = 3/5*l1 + (-1 + 8*sqrt(5)/25)*l2 + 4*sqrt(5)/25*l3 == 0;
eqn3 = -sqrt(5)/5*l2 + (2*sqrt(5)/25 - 1)*l3 == 0;

[A, B] = equationsToMatrix([eqn1, eqn2, eqn3], [l1, l2, l3]);
lambda = linsolve(A, B);
disp(lambda);
```

$$\begin{pmatrix} 0 \\ 0 \\ 0 \end{pmatrix}$$