R1

R2

$$\Delta = \frac{\left[P \cdot x^2 \cdot (3 \cdot L - x)\right]}{6EI}$$

Need to get 6 equations for Δ where x = $L_{.1}$ to $L_{.6}$. This will give me $\Delta_{.p1}$ to $\Delta_{.p6}$

R3

$$\delta = \frac{Px^2 \cdot (3a - x)}{6EI}$$

Need 6 equations for P= $R_{.1}$, a=$L_{.1}$, and x=$L_{.1}$ to $L_{.6}$. This will give me $\delta_{.11}$ to $\delta_{.61}$

R4

Need 5 equations for P = $R_{.2}$, a = $L_{.2}$ and x=$L_{.2}$ to $L_{.6}$. This will give me $\delta_{.22}$ to $\delta_{.62}$

R5

$\Delta_{1p} := P \cdot L_1$

Need 4 equations for P = $R_{.3}$, a = $L_{.3}$ and x=$L_{.3}$ to $L_{.6}$. This will give me $\delta_{.33}$ to $\delta_{.63}$

Need 3 equations for P = $R_{.4}$, a = $L_{.4}$ and x=$L_{.4}$ to $L_{.6}$. This will give me $\delta_{.44}$ to $\delta_{.64}$

Need 2 equations for P = $R_{.5}$, a = $L_{.5}$ and x=$L_{.5}$ to $L_{.6}$. This will give me $\delta_{.55}$ to $\delta_{.65}$

Need 1 equations for P = $R_{.6}$, a = $L_{.6}$ and x= $L_{.6}$. This will give me $\delta_{.66}$.

$$\delta = \frac{Pa^2 \cdot (3x - a)}{6EI}$$

Need 1 equations for P=$R_{.2}$, a=$L_{.2}$ and x=$L_{.1}$ .This will give me $\delta_{.12}$

Need 2 equations for P=$R_{.3}$, a=$L_{.3}$ and x=$L_{.1}$ to $L_{.2}$ .This will give me $\delta_{.13}$ to $\delta_{.23}$

Need 3 equations for P=$R_{.4}$, a=$L_{.4}$ and x=$L_{.1}$ to $L_{.3}$ .This will give me $\delta_{.14}$ to $\delta_{.34}$

Need 4 equations for P=$R_{.5}$, a=$L_{.5}$ and x=$L_{.1}$ to $L_{.4}$ .This will give me $\delta_{.15}$ to $\delta_{.45}$

Need 5 equations for P=$R_{.6}$, a=$L_{.6}$ and x=$L_{.1}$ to $L_{.5}$ .This will give me $\delta_{.16}$ to $\delta_{.56}$

$\Delta_{.1p} + \delta_{.11} + \delta_{.12} + \delta_{.13} + \delta_{.14} + \delta_{.15} + \delta_{.16} = 0$

$\Delta_{.2p} + \delta_{.21} + \delta_{.22} + \delta_{.23} + \delta_{.24} + \delta_{.25} + \delta_{.26} = 0$

$\Delta_{.3p} + \delta_{.31} + \delta_{.32} + \delta_{.33} + \delta_{.34} + \delta_{.35} + \delta_{.36} = 0$

$\Delta_{.4p} + \delta_{.41} + \delta_{.42} + \delta_{.43} + \delta_{.44} + \delta_{.45} + \delta_{.46} = 0$

$\Delta_{.5p} + \delta_{.51} + \delta_{.52} + \delta_{.53} + \delta_{.54} + \delta_{.55} + \delta_{.56} = 0$

$\Delta_{.6p} + \delta_{.61} + \delta_{.62} + \delta_{.63} + \delta_{.64} + \delta_{.65} + \delta_{.66} = 0$

Solve for $R_{.1}$ to $R_{.6}$