0.1 Multiple equality constraints

0.1.1 Solving the Langrangian with many constraints

This time we have:

$\mathcal{L}_{x_i} = \frac{\delta f}{\delta x_i} - \sum_k^m \lambda_k \frac{\delta g_k}{\delta x_i} = 0$

$\mathcal{L}_{x_j} = \frac{\delta f}{\delta x_j} - \sum_k^m \lambda_k \frac{\delta g_k}{\delta x_j} = 0$

$\frac{\delta f}{\delta x_i} - \sum_k^m \lambda_k \frac{\delta g_k}{\delta x_i} = \frac{\delta f}{\delta x_j} - \sum_k^m \lambda_k \frac{\delta g_k}{\delta x_j}$