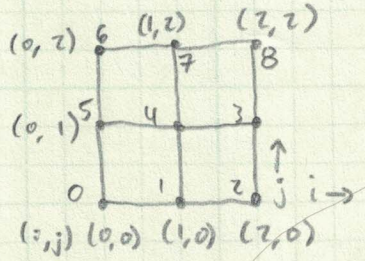
5) ex)



N sites → N_i: x-dir sites, N_j y-dir sites

c_{ij} = cost of moving from node i to j if connected

$$\min \sum_{i=0}^{N_i} c_{ij} \quad \forall j = 0, \dots, N_j$$

s.t. $\text{node}_0 = 0$

$\text{node}_{N+1} = 0$

let $x_{i,j,n}$ be location of truck at n^{th} site

objective: $\min \sum_{i=0}^{N_i} C_{ij} \quad \forall j = 0, \dots, N_j$

- ensures all sites are visited & connecting nodes are used because c_{ij} will be minimized

constraints: $x_{i,j,n}\big|_{n=0} = 0$

$x_{i,j,n}\big|_{n=N} = 0$

} ensures truck starts ($n=0$) & finishes ($n=N$) at the station (site 0)