

Corner 1' connects with nodes $(n+1), (n+i), (n+j+1)$
 Corner 3' 25" connects with nodes $(n+1), (n-j), (n-j+1)$
 Corner 4' 30' connects with nodes $(n-1), (n-j), (n-j-1)$
 Corner 2' 6' connects with nodes $(n-1), (n+i), (n+i-1)$

represents "name" of the node

all $i^2 \leq n \leq i^2$

We can define these

by $(n-1) \leq i \leq 0$

$i = 5$

5	25	26	27	28	29	30
4	19	20	21	22	23	24
3	13	14	15	16	17	18
2	7	8	9	10	11	12
1	1	2	3	4	5	6

$n \leq i \leq 0$

for last 2 rows which should represent all rows

(i,j)
 '30' nodes
 - Only '12' have "all"
 8 edges $(i-2) \times (i-2)$

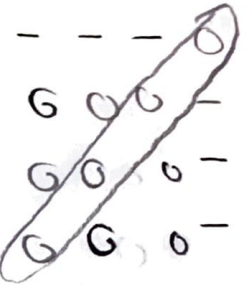
- 4 corners have 3 edges
 - 14 non-corner perimeter cells have 5 edges $(2(i-2) + 2(i-2))$

These are all $j = 6$

edge-list = $\begin{bmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 30 \\ 0 & 1 & 0 & 0 & 0 & 0 & 1 & 1 & 0 & \dots & 0 \\ 1 & 0 & 1 & 0 & 0 & 0 & 1 & 1 & 1 & \dots & 0 \\ 0 & 1 & 0 & 1 & 0 & 0 & 1 & 1 & 1 & \dots & 0 \end{bmatrix}$

How do we define their neighbors?
 $\begin{bmatrix} T & TR & TL & R & L & B & BR & BL \\ (n+i), (n+i+1), (n+i-1), (n+1), (n-1), (n-2), (n-3), (n-4) \end{bmatrix}$

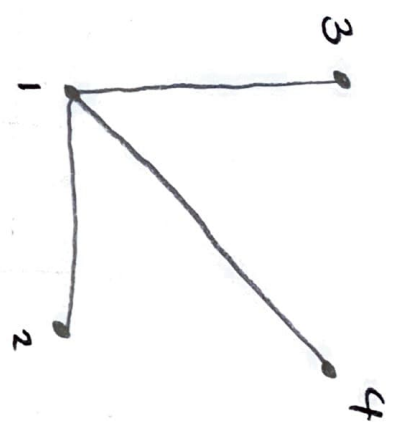
Edge List



Should
always
have
empty
diagonal

Node

- 1, (1,1)
- 2, (4,1)
- 3, (1,4)
- 4, (4,4)



91	92								99	100
81	82								89	90
71	72								79	80
61	62								69	70
51	52								59	60
41	42								49	50
31	32								39	40
21	22								29	30
11	12								19	20
1	2								9	10