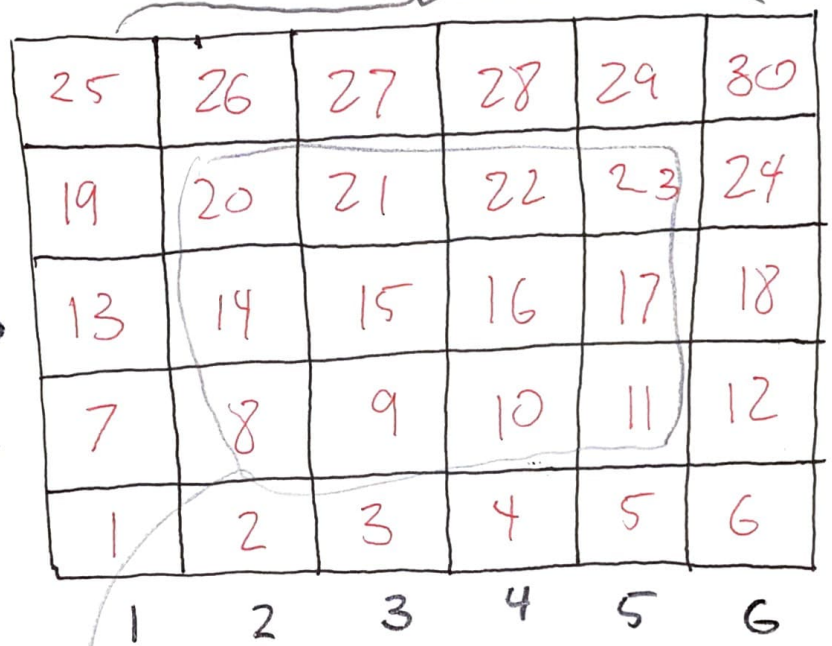
Corner1'1' connects with nodes (n+1), (n+j), (n+j+1)
Corner3'25' connects with nodes (n+1), (n-j), (n-j+1)
Corner4'30' connects with nodes (n-1), (n-j), (n-j-1)
Corner2'6' connects with nodes (n-1), (n+j), (n+j-1)
} 4 corners

#'s represents "name" of the node

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




We can define these by $(n-1)\%j == 0$

$i=5$

$n\%j == 0$

(i x j)
'30' nodes
- Only '12' have "all" 8 edges ((i-2)x(j-2))
- 4 corners have 3 edges
- 14 non-corner perimeter cells have 5 edges (2(i-2)+2(j-2))

These are all $< j$

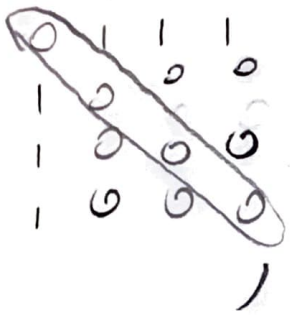
for last 2 rows which shall represent all rows

edge_list = [
1 2 3 4 5 6 7 8 9 10 30
1 0 1 0 0 0 0 1 1 0 0 ... 0 ;
2 1 0 1 0 0 0 1 1 1 0 ... 0 ;
3 0 1 0 1 0 0 0 1 1 1 ... 0 ;

How do we define their neighbors?

T TR TL R L B BL BR
[(n+j), (n+j+1), (n+j-1), (n+1), (n-1), (n-j), (n-j-1), (n-j+1)]

Edge List



Should always have empty diagonal

Node

1. (1,1)
2. (4,1)
3. (1,4)
4. (4,4)