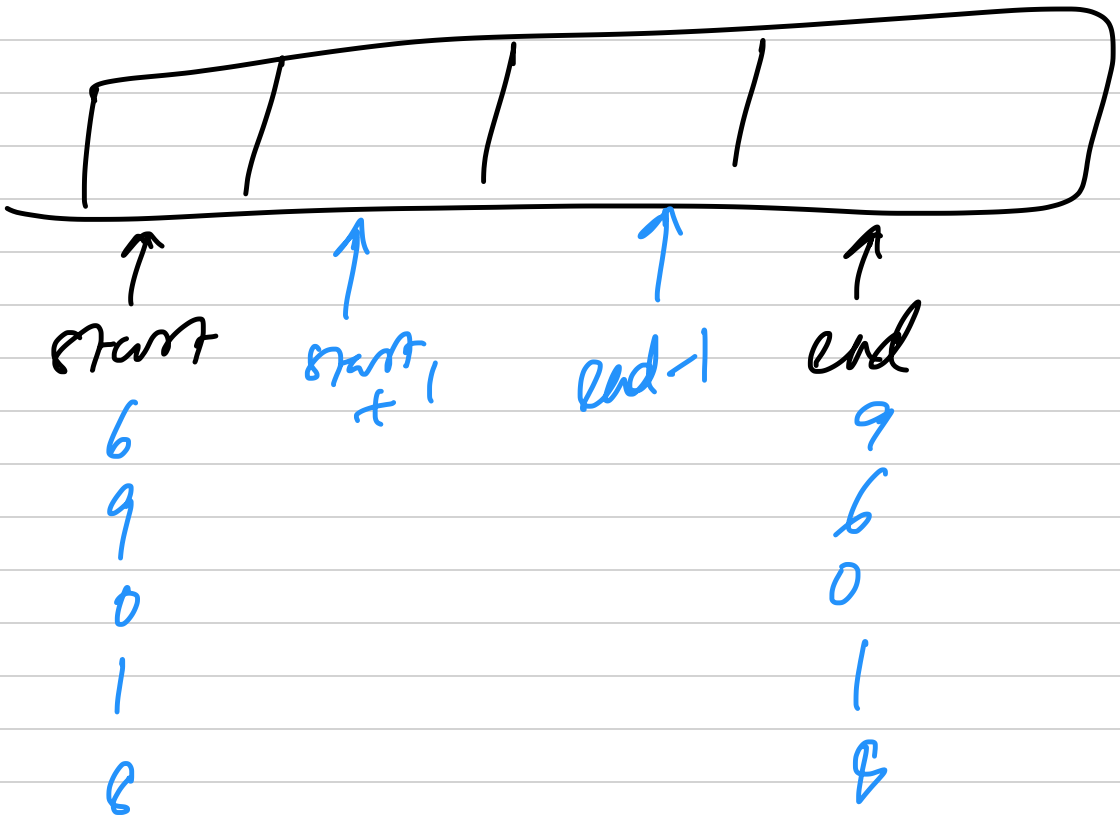
247 Strobogrammatic Number II

Recursive Approach.

6 → 9
9 → 6
0 → 0
1 → 1
8 → 8

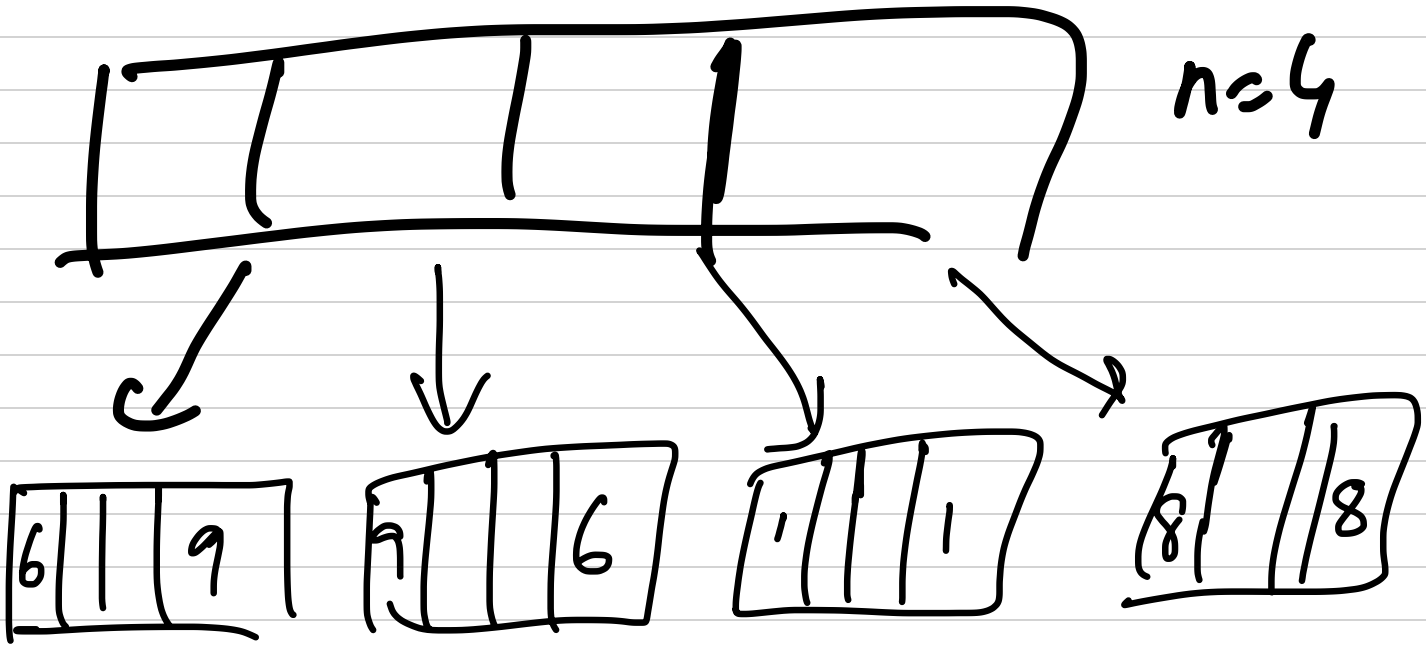
} CONVERSIONS

ex n=4



```
fnc makenum(start, end, num, ans)

    if start > end:
        ans.append(num)

    elif start == end:        # only 1 position left to be filled
        for x in [0, 1, 8]
            newnum = copy.copy(num)
            newnum[start] = x
            makenum(start+1, end, newnum, ans)
```

```
else:        # more than 2 positions to fill

newnum1 = copy.copy(num)
newnum2 = copy.copy(num)

newnum1[start] = 6          newnum1[end] = 9

newnum2[start] = 9          newnum2[end] = 6

makenum(start+1, end-1, newnum1, ans)

makenum(start+1, end-1, newnum2, ans)

for z in [0,1,8]:

    newnum3 = copy.copy(num)
    newnum3[start] = newnum3[end] = z

    makenum(start+1, end-1, newnum3, ans)
```


n=4
6
9
6
1
1
8
8