6) Radix

```
def largo(n):
    if not type(n)==int:
        return "Error"
    elif n==0:
        return 1
    cont=0
    for i in range(n):
        cont+=1
        if n==0:
            return cont

def radix(lista): #[100,22,95,1,23,45,450,18,35]
    if not type(lista)==list:
        return "Dato invalido"
    elif lista==[]:
        return []
    else:
        mayor=0
        for i in range(len(lista)):
            if i==0:
                mayor=lista[i]
            else:
                if lista[i]>mayor:
                    mayor=lista[i]
        cont=0
        for i in range(largo(mayor)):
            L0=[]
            L1=[]
            L2=[]
            L3=[]
            L4=[]
            L5=[]
            L6=[]
            L7=[]
            L8=[]
            L9=[]
```

```
while lista != []:
    if lista[0] // (10**cont) %10 == 0:
        L0 += [lista[0]]
    elif lista[0] // (10**cont) %10 == 1:
        L1 += [lista[0]]
    elif lista[0] // (10**cont) %10 == 2:
        L2 += [lista[0]]
    elif lista[0] // (10**cont) %10 == 3:
        L3 += [lista[0]]
    elif lista[0] // (10**cont) %10 == 4:
        L4 += [lista[0]]
    elif lista[0] // (10**cont) %10 == 5:
        L5 += [lista[0]]
    elif lista[0] // (10**cont) %10 == 6:
        L6 += [lista[0]]
    elif lista[0] // (10**cont) %10 == 7:
        L7 += [lista[0]]
    elif lista[0] // (10**cont) %10 == 8:
        L8 += [lista[0]]
    elif lista[0] // (10**cont) %10 == 9
        L9 += [lista[0]]
    lista = lista[1:]
lista = lista + L0 + L1 + L2 + L3 + L4 + L5 + L6 + L7 + L8 + L9
cont += 1
print(lista)
```

Primer for i #=Determinar el mayor

i	Mayor	lista[i]	len(lista)
0	0	100	9
1	100	22	9
2	100	95	9
3	100	1	9
4	100	23	9
5	100	45	9
6	100	450	9
7	450	18	9
8	450	35	9

Segundo for i #=Acomoda en la listas

i	0	1	2
Lista	[100,22,95,1,23,45,450,18,35]	[100,450,1,22,23,95,45,35,18]	[100,1,18,22,23,35,45,450,95]
L0	[100,450]	[100,1]	[1,18,22,23,35,45,95]
L1	[1]	[18]	[100]
L2	[22]	[22,23]	[]
L3	[23]	[35]	[]
L4	[]	[45]	[450]
L5	[95,45,35]	[450]	[]
L6	[]	[]	[]
L7	[]	[]	[]
L8	[18]	[]	[]
L9	[]	[95]	[]
cont	0	1	2

Lista final = [1,18,22,23,35,45,95,100,450]