

```
// MAIN
```

```
main(){
```

```
// Verificaciones del programa
```

```
if N < 10 || N > 50
```

```
    leave()
```

```
for i=0; i < N; i++
```

```
    if (POS[i]<1 || POS[i]>90)
```

```
        leave()
```

```
if ORDER!=1 || ORDER!=0
```

```
    leave()
```

```
leave(){
```

```
    SortedValues[0] = A5A5A5A5
```

```
    exit()
```

```
}
```

```
//funciones de ordenamiento, serie fibonacci, guardado de los valores
```

```
Sort(N, POS, ORDER)
```

```
Fibonacci(*SERIE, SIZE)
```

```
Guardar(*SERIE, N, *POS, *Sortedvalues)
```

```
Final()
```

```
}
```

```
Final(){
```

```
    Final()
```

```
}
```

```

Sort(N, *POS, ORDER){
for i=0; i<N-1; i++){
    for j=0; j<N-1-i; j++){
        if !ORDER{
            if POS[j]>POS[j+1]{
                temp=POS[j]
                POS[j]=POS[j+1]
                POS[j+1]=temp
            }
        }
    }
}
}

```

```

Fibonacci(*SERIE, SIZE){
SERIE[0]=0
SERIE[1]=0
SERIE[2]=1
SERIE[3]=0

for i=4; i<SIZE*2;i+=2{
    MSB_B = SERIE[i-1]
    LSB_B = SERIE[i-2]
    MSB_A = SERIE[i-3]
    LSB_A = SERIE[i-4]

    MSB_R,LSB_R = Add64(MSB_A,LSB_A,MSB_B,LSB_B)

```

```

        SERIE[i] = LSB_R
        SERIE[i+1] = MSB_R

    }
}

Add64(A2,A1, B2, B1){
    R1 = A1 + B1  //----> Genera carry C
    R2 = A2 + B2 + C
    return R2, R1
}

Guardar(*SERIE, N, *POS, *SortedValues){
    for (i=0; i<N*2; i+=2){
        aux=POS[i]
        SortedValues[i]=SERIE[(aux-1)*2]
        Sortedvalues[i+1]=SERIE[((aux-1)*2)+1]
    }
    return
}

```

