1.)

Computation for C(n)=number of key comparisons

```
for k ← 1 to n - 1
   for i ← k+1 to n
         if A[i]<min----------key comparison
```

	(Number of key comparisons at each iteration of outer loop)
k=1 i = 2 to n	n-1
k=2 i = 3 to n	n-2
|	
|	
|	
|	
k=n-1 i=n to n	1

C(n) = (n-1) + (n-2) + ...+2+1

= **n(n-1)/2**

Computation for oc(n) = number of other comparisons

```
for k ← 1 to n - 1
   for i ← k+1 to n
```

is equivalent to

```
for(k=1;k<=n-1;k++)
  for(i=k+1;i<=n;i++)
```

	(Number of other comparisons at each iteration of outer loop)
k=1 1 + (2 to n+1)	n+1
k=2 1 + (3 to n+1)	n
|	
|	
k=n-1 1+ (n to n+1)	3
	+1 comparison for outer for loop

oc(n) = (n+1)+n+.....+3+1
= (n+1)+n+.....+3+2+1-2
=**((n+1)(n+2)/2)-2**

Computation for A(n) = number of assignments

A(n) = n + 2*C(n) + 5(n-1)

- Initializing min & minPosition and swapping A[k] ↔ A[minPosition]
- setting min & minPosition(same as number of key comparisons)
- number of loop initializations. ((n-1) + 1 = n -> Inner and outer loop)

= n + n(n-1) + 5(n-1)
= $\boldsymbol{n^2}$ **+ 5n - 5**