

Exercice 1 :

res	l	
.	5 1 8 7 6 3 2 4	5 1 8 7 6 3 2 4
1	5 8 7 6 3 2 4	1 5 8 7 6 3 2 4
1 2	5 8 7 6 3 4	1 5 7 8 6 3 2 4
1 2 3	5 8 7 6 4	1 5 6 7 8 3 2 4
1 2 3 4	5 8 7 6	1 3 5 6 7 8 2 4
1 2 3 4 5	8 7 6	1 2 3 5 6 7 8 4
1 2 3 4 5 6	8 7	1 2 3 4 5 6 7 8
1 2 3 4 5 6 7	8	
1 2 3 4 5 6 7 8	.	

Complexité : quadratique

Exercice 2 :

```
def estPermu(T):
    Tab = [False]*len(T)
    for i in T:
        if (i <= len(T)) and (i >= 1) and (Tab[i-1] == False) :
            Tab[i-1] = True
        else :
            return False
    return True
```

```
def triPerm(T):
    Tab = [0]*len(T)
    for i in T :
        Tab[i-1] = i
    return Tab
```

```
def inverse(T):
    res = [0]*len(T)
    for i in range(len(T)):
        res[T[i]-1] = i+1
    return res
```

```
def produit(T1, T2):
    res = [0]*len(T1)
    for i in range(len(T2)):
        res[i] = T1[T2[i]-1]
    return res
```

Exercice 3 :