

if $\text{func}(t_1, t_2) = []$
 $O(m_1^2 + m_2^2)$

```

8-8) def func(t1, t2):
    if len(t1) == 0:
        return t2
    elif len(t2) == 0:
        return t1
    elif t1[0] < t2[0]:
        return [t1[0]] + func(t1[1:], t2)
    else:
        return [t2[0]] + func(t1, t2[1:])

```

$\rightarrow O(m_1)$
 $\rightarrow O(m_2)$

après toutes les retours

$$m_1 + (m_1 - 1) + (m_1 - 2) + \dots + 1 = \frac{m_1(m_1 - 1)}{2}$$

$$m_2 + (m_2 - 1) + (m_2 - 2) + \dots + 1 = \frac{m_2(m_2 - 1)}{2}$$

factoriel !

```

def fact(n):
    if n == 0:
        return 1
    else:
        return n * fact(n - 1)

```