{11,12}, {13,23}, {24}, QUICKSORT({33,25,45})

e=33 A_1={25} A_2={33} A_3={45}

{11,12} ({13,23}, {24}, {25}, {33}, {45}

ESERCIZIO 3° - 2° parte

```
J=n
for(i=1; i<j; i++)
    if(A[i]>=0)
        tmp = A[i]
        A[i] = A[j]
        A[j] = tmp
    j--;
    i--;
```

ESERCIZIO 4° - 2° parte

```
MERGES(A[1..N])
if |A|=1 then return A
A1 ← MERGES(A[1... n/2])
A2 ← MERGES(A[n/2+1 ... n])
return MERGE(A1, A2)
```

$$T(n) = \begin{cases} 1 & \text{se } n=1 \\ 2T(n/2) + \Theta(\sqrt{n}) \end{cases}$$

$2T(n/2) + n^{1/2}$ $\quad e > e^k$

$T(n) = \Theta(n^{\log_2 e}) = \Theta(n^{\log_2 2}) = \Theta(n)$