

## ESERCIZIO 2° - 2° parte

QUICKSORT ( $l, r$ ) % Ordina  $A[l..r]$

$i = l, j = r$

$a$  = qualche elemento di  $A[l..r]$

Repeat

while  $A[i] < a$  do  $i = i + 1$

while  $A[j] > a$  do  $j = j - 1$

if  $i \leq j$  then

  swap the  $i$  and  $A[j]$

$i = i + 1, j = j - 1$

until  $i > j$

if  $l < j$  then QUICKSORT ( $l, j$ )

if  $i < r$  then QUICKSORT ( $i, r$ )

$A = \{24, 33, 25, 45, 11, 12, 23, 13\}$

QUICKSORT ( $1, 8$ )

$i = 1, j = 8$

$a = 24$

$A[1] = 13$      $A[8] = 24$

$i = 2, j = 7$

QUICKSORT ( $1, 7$ )

$A = \{13, 33, 25, 45, 11, 12, 23, 24\}$

$i = 1, j = 7$

$a = 13$

$j = 6$

$A[1] = 12$

$A[6] = 13$

$i = 2, j = 5$

QUICKSORT ( $1, 5$ )

$A = \{12, 33, 25, 45, 11, 13, 23, 24\}$