

$$T(n/2) + \Theta(n)$$

$$cT(n/e) + b_n$$

$$k=1$$

$$e=2$$

$$e=2$$

$$a = c^k$$

$$m^k \lg m$$

$$m \lg m$$

"koko" QUICKSORT

QUICKSORT( ~~$l, r, j$~~ ) = ( $l, r$ )

~~if  $l = r$  then return  $l$~~

~~if  $l < r$~~

~~if  $A[l]$~~

for  $i = l, j = r$

do

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

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

if  $i < j$  then

swap  $A[i]$  &  $A[j]$

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

until  $i > j$

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

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