

$A[1..N]$

$$m = k \times a$$

dividi A in $A_1, A_2, \dots, A_k : i < j \Rightarrow A_i < A_j \quad \forall x \in A_i, \forall y \in A_j$

SUDDIVIDI($A[1..N], a, i$)

IF $|A| = a$ return A

$x = \text{SELECT}(A, a);$

% PARTITION A

$$A_i = \{y \in A : y \leq x\}$$

~~return~~

SUDDIVIDI($A - A_i, a, i+1$)

$$T(m) = \begin{cases} e & \text{if } |A| = a \text{ and } k=1 \\ \Theta(m \log m) + e + T(m) & \text{otherwise} \end{cases}$$

$\{1, 2, 3, 4, 5, 6, 7, 8\}$

$$e = 2 \quad k = 4$$

1, 2

DIVIDI($A[1..N], k, i$)

IF $k = 1$ then return A

else

$$a = \frac{|A|}{k}$$

$\text{RANGO} = \text{SELECT}(A, a)$

$$A_1 = \{x \in A : x \leq \text{RANGO}\}$$

$$A_2 = \{x \in A : x > \text{RANGO}\}$$

return $(A_1, \text{DIVIDI}(A_2, k-1, i))$

$$k = 4, i = 1$$

$$e = 2$$

(1, 2)

(3, 4, 5, 6, 7, 8) $k = 4$

$$T(m) = \begin{cases} e & \text{if } k=1 \\ \Theta(m \log m) + 2\Theta(m) + T(m) & \text{otherwise} \end{cases}$$