

Taller AYED:

1.
 

- $\log(\log(n))$	- $2^{n-1}$
- $\log(n)$	- $2^n$
- $(\log(n))^2$	- $n^3$
- $\ln(n)$	- $e^n$
- $\sqrt{n}$	- $n - n^3 + 7n^5$
- $n$	- $n!$
- $n^2 - n \log(n)$	
- $n^2 + \log(n)$	

2.
 

Function mystery(n)	Cost	times
$r := 0$	C1	1
For $i := 1$ to $n-1$ do	C2	$n-1$
For $j := i+1$ to $n$ do	C3	$\rightarrow \sum_{j=i+1}^n j$
For $k := 1$ to $j$ do	C4	$\rightarrow \sum_{k=j}^N k$
$r := r+1$	C5	
return(r)		

$$= 1 + n-1 + \frac{n(n+1)}{2} + n \left( \frac{n(n+1)}{2} \right) + n \left( \frac{n(n+1)}{2} \right) - 1$$

Peor Caso:

$$= O(1) + O(n-1) + O(n^2) + O(n^3) + O(n^3) - O(1)$$

$$= O(n^3)$$