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$: : \rightarrow res:$

$\vee$

$\leftarrow$

$\leftarrow$

$\leftarrow$

$\leftarrow$

$: : : \to res:$

$\vee$

$\vee$

$\leftarrow$

$\leftarrow$

$\leftarrow$

$\wedge \vee$

$\leftarrow$

$\wedge \vee$

$\leftarrow$

$\to res:$

$\neq \wedge \leq$

$\leq$

$par : \rightarrow res :$

$*$

$\neq \vee \wedge \vee$

$\leftarrow \wedge$
$\leftarrow \wedge$
$\leftarrow \wedge$
$\leftarrow \wedge$

$\geq \wedge \geq$

$\binom{n}{2}$

$\binom{n-1}{2}$

$\binom{n-i-1}{2}$

$\binom{n}{2} \binom{n}{2} \binom{n-1}{2}$

$_{ij}\forall\leftarrow$

$Cantidaddearqueologos$:4
$Cantidaddecanibales$:2
$Velocidaddearqueologos$:10101010
$Velocidaddecanibales$:1010

$Velocidaddecrucetotal$:90

$Cantidaddearqueologos$:5
$Cantidaddecanibales$:0
$Velocidaddearqueologos$:15105220
$Velocidaddecanibales$:

$Velocidaddecrucetotal$:56

$_{i\neq j}\forall\leftarrow$

$Cantidaddearqueologos$: 3
$Cantidaddecanibales$: 2
$Velocidaddearqueologos$:246
$Velocidaddecanibales$:135

$Velocidaddecrucetotal$:18

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$Cantidaddearqueologos$:4
$Cantidaddecanibales$:2
$Velocidaddearqueologos$:36912
$Velocidaddecanibales$:12

$Velocidaddecrucetotal$:33

$Cantidaddearqueologos$:2
$Cantidaddecanibales$:3
$Velocidaddearqueologos$:36
$Velocidaddecanibales$:125

$Velocidaddecrucetotal$:

$1 \leq N + M \leq 6$

n	t	t/n

n	t	t/n

10^{15}

$sumaParcial 3^0 3^i P$

$sumaParcial sumasParciales i + 1 sumaParcial 3^{i-1}$

$PequilibrioActual$

$sumasParcialesequilibrioActualequilibrioActualsumasParcialesequilibrioActualarrayDarrayI$

$equilibrioActualsumasParciales$

$arrayDarrayI$

$LongLong\!:\rightarrow S\!:T\!:arrayI\!:arrayD\!:$

$\sqrt{P}$

$\leftarrow 3^i$

$\sqrt{P}$

$\geq$ $\sqrt{P}$

$\leftarrow$

$\leftarrow 3^{i-1}$

$\frac{size}{2}$

$lg(\sqrt{P})$

$\geq$

$\wedge$

$\leftarrow$

$\cup$

$\leftarrow$

$\cup$

$\leftarrow$

$\leftarrow \frac{middle}{2}$

$\leftarrow \frac{size}{2}$

$\geq$

$\leftarrow$

$\leftarrow \frac{size}{2}$

$\sqrt{P}$

$\sqrt{P}$

$:\to S : T : arrayI : arrayD :$
$\sqrt{P}$
$\sqrt{P}$
$\sqrt{P}$
$\sqrt{P}$
$\sqrt{P}$

$3^0 3^i P \sqrt{P}$

$i = 0 \Rightarrow$
$3^i \geq P \geq 3^{i-1} i > 0 i \leq \sqrt{P}$
$P \geq 3^{i-1} \Rightarrow \sqrt{P} \geq \sqrt{3^{i-1}}$
$\sqrt{3^{i-1}} \geq i \Rightarrow 3^{i-1} \geq i^2 i = 1 3^{1-1} \geq 1 i > 1 3^{i-1} i^2$

$$\sum_{x=0}^{i} 3^i \geq P$$

$\sqrt{P}$

$\sqrt{P}$

$sumasParciales \sqrt{P}^{i-1 i-1} \sqrt{P}$

$\sqrt{P} sumasParciales equilibrioActual equilibrioActual sumasParciales equilibrioActual arrayD arrayI$

$equilibrioActual sumasParciales$
$equilibrioActual \sqrt{P}$

$arrayD arrayI ### \leq \sqrt{P}$

$\sqrt{P} \sqrt{P} \sqrt{P}$

$\sqrt{P} \sqrt{P} \sqrt{P} \sqrt{P} \sqrt{P}$
$equilibrioActual$
$\sum_{i=0}^{n} (3^i)$

$[0, 1]$

$$[0, \sum_{i=0}^{1} (3^i)] = [0, 4]$$

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$i = n \in \mathbb{N} n + 1$

$$[0, \sum_{i=0}^{n}(3^i)]$$

$$[0, \sum_{i=0}^{n+1}(3^i)]$$

$$[0, \sum_{i=0}^{n+1}(3^i)] = [0, \sum_{i=0}^{n}(3^i)] + 3^{n+1}$$

$\sum_{i=0}^{n}(3^i)$

$$3^{n+1} = 3 * 3^n.$$

$3^n < \sum_{i=0}^{n}(3^i) 3^n 3^n$

$x \in \mathbb{N} x \leq \sum_{i=0}^{n+1}(3^i)$

$\forall n \in \mathbb{N}$

$x maximapotenciade3en[0, \sum_{i=0}^{n+1}(3^i)] 3^{n+1}$
$x \sum_{i=0}^{n}(3^i) < 3^{n+1} \sum_{i=0}^{n}(3^i) < x$

$x 3^{n+1} \sum_{i=0}^{n}(3^i)$

$$x < \sum_{i=0}^{n+1}(3^i) = x < \sum_{i=0}^{n}(3^i) + 3^{n+1} = x - 3^{n+1} < \sum_{i=0}^{n}(3^i)$$

$$P 3^i \leftarrow$$

$$P$$

$$\sum_{i=1}^{n} 3_i = P$$

$$P3^i + R \leftarrow$$

$$P$$

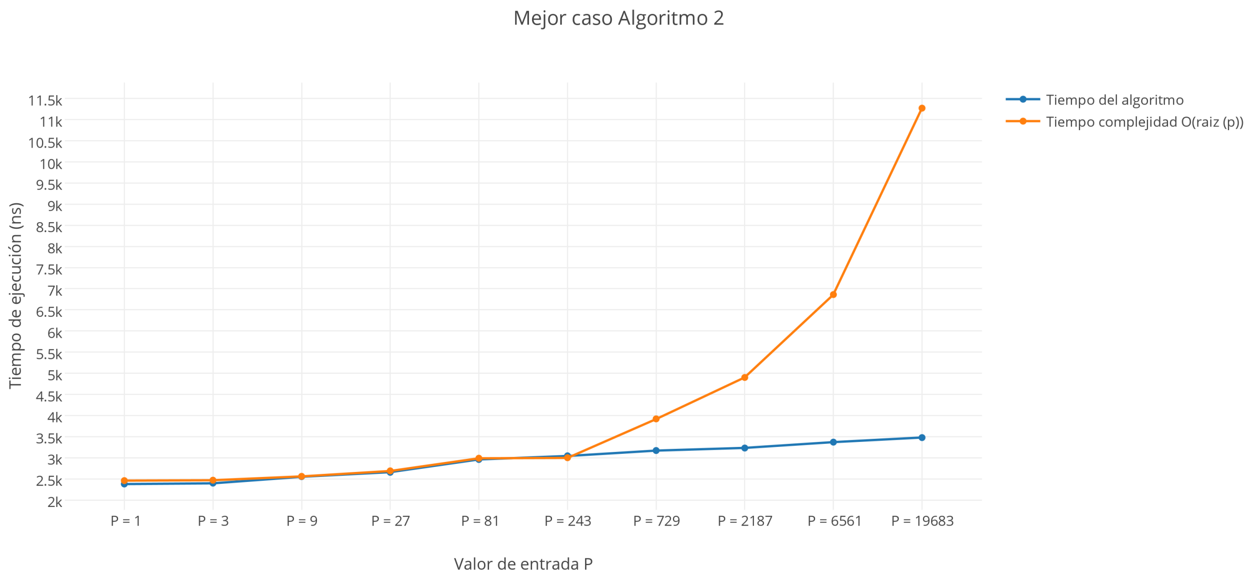
$PMOD2 = 1$

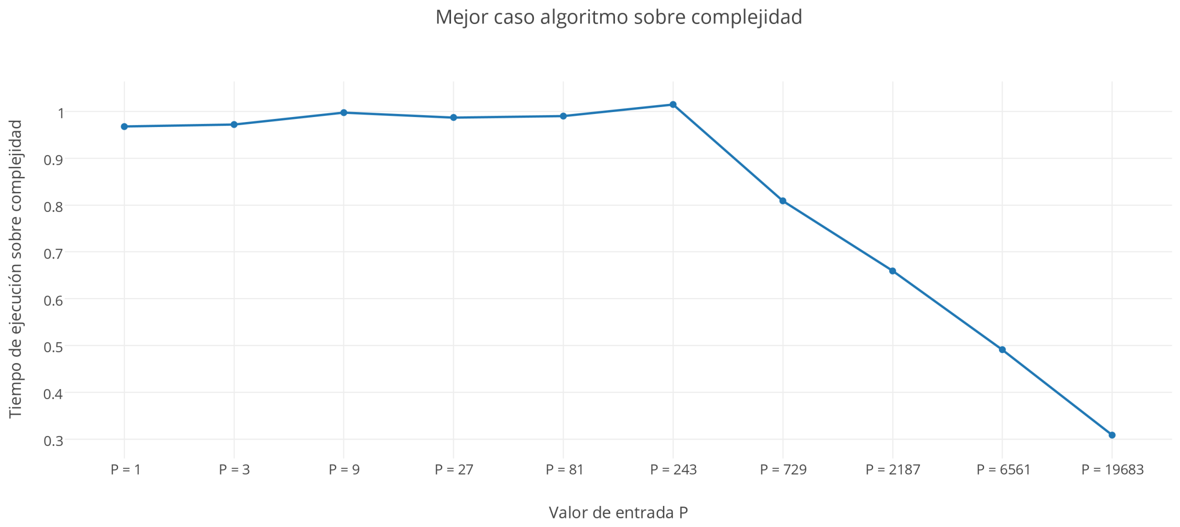
$$P$$

$PMOD2 = 0$

$P3^i \leq \leq$

$3^{30} P$



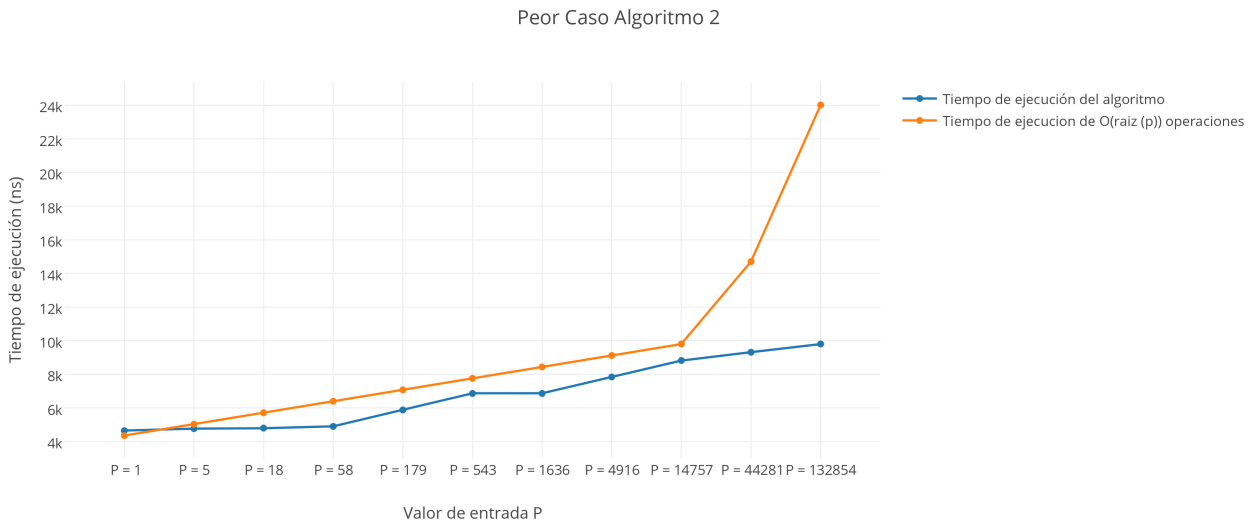


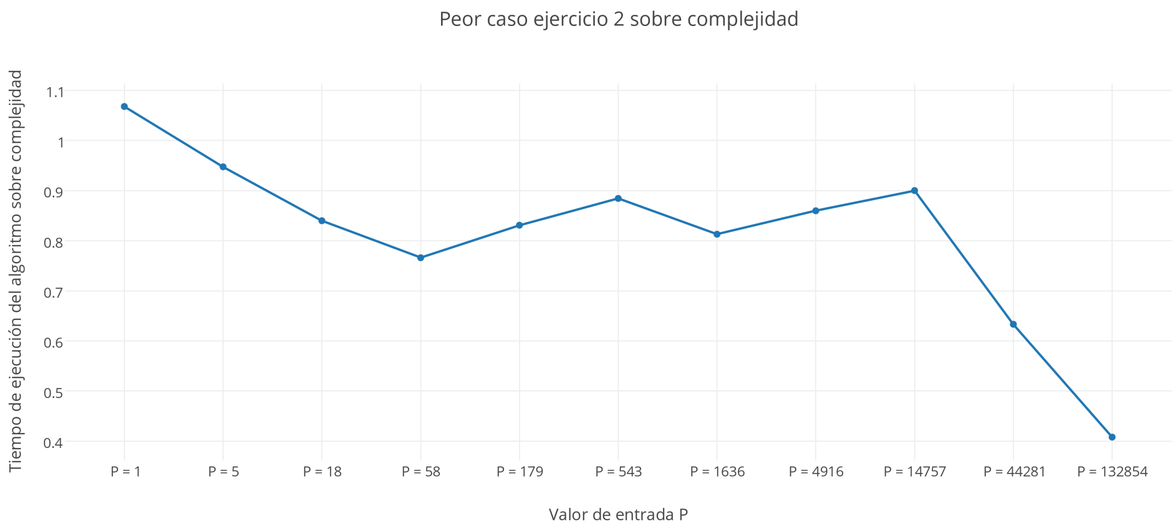
n	t	$\sqrt{P})$	$t/\sqrt{P})$
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

P

$$\sum_{i=1}^{n} 3_i = P$$

$$\sum_{i=1}^{20} 3_i = 5230176601$$





n	t	$\sqrt{P})$	$t/\sqrt{P})$

$currentIdx:$

$\leftarrow$
$\leftarrow$

$\leftarrow$

$\leftarrow$

$\leftarrow$

$\leftarrow$
$\leftarrow$
$\leq$

$\leftarrow$

$n!.n^2.log(n)$

$currentIdx : res :$

$\leftarrow$

$\leftarrow$

$\leftarrow$

$\leftarrow$

$\leftarrow$

$\leftarrow$

$\leftarrow$

$nlog(n)$