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1 for n
if n 3n O(n)
n

2 if 1
1 O(n)
if n

n

3 if 50%
n^2 → worst case $O(n^2)$
else 50%
for(int i = n-1; i > 0; i = i/2) $\log n$

4 while i < 60 constant
i = i + 1

$O(1)$

5 $T(n) = T(n/6) + C$
$T\left(\frac{n}{6}\right) = T\left(\frac{n}{6} \cdot \frac{1}{6}\right) + C \quad + C$
$= T\left(\frac{n}{6^2}\right) + 2C$
$T\left(\frac{n}{6^2}\right) = T\left(\frac{n}{6^3}\right) + C \quad + 2C$
$= T\left(\frac{n}{6^3}\right) + 3C$
T
$T\left(\frac{n}{6^i}\right) + iC$
$n = 6^i \quad T(1) + (\log_6 n)C \quad O(\log_6 n)$
$i = \log_6 n$

6 LL → [2] → [7] → [6] → [3]

hd hd hd hd

m(hd) → 1 + m1(hd.next) = 1
m1(hd) → m2(hd.next) = 0
m2(hd) → m3(hd.next) = 0
m3(hd) → m4(hd.next) = 0
m4(hd) → 0

5 SOP(m4("define", 0, 6))?

str s e

m("define", 0, 6) → m1("define", 1, 5)
m1("define", 1, 5) → m2("define", 2,

Error

6 m5(2018)

m(2018) → m1(2018)
m1(2018) → m2(1009)
m3(1009) → m4(504)
m4(504) → m5(252)
m5(252) →