Backtracking (NP)

$n = a^2 + b^2 + c^2 + d^2$

$23 = 3^2 + 3^2 + 2^2 + 1^2$

$100 = 10^2 + 0^2 + 0^2 + 0^2$
$5^2 + 5^2 + 5^2 + 5^2$

```
for (int a=0; a<√n; a++) -> n
    for( int b=a; b<√n; b++) -> n
```
} ~~n²~~ n

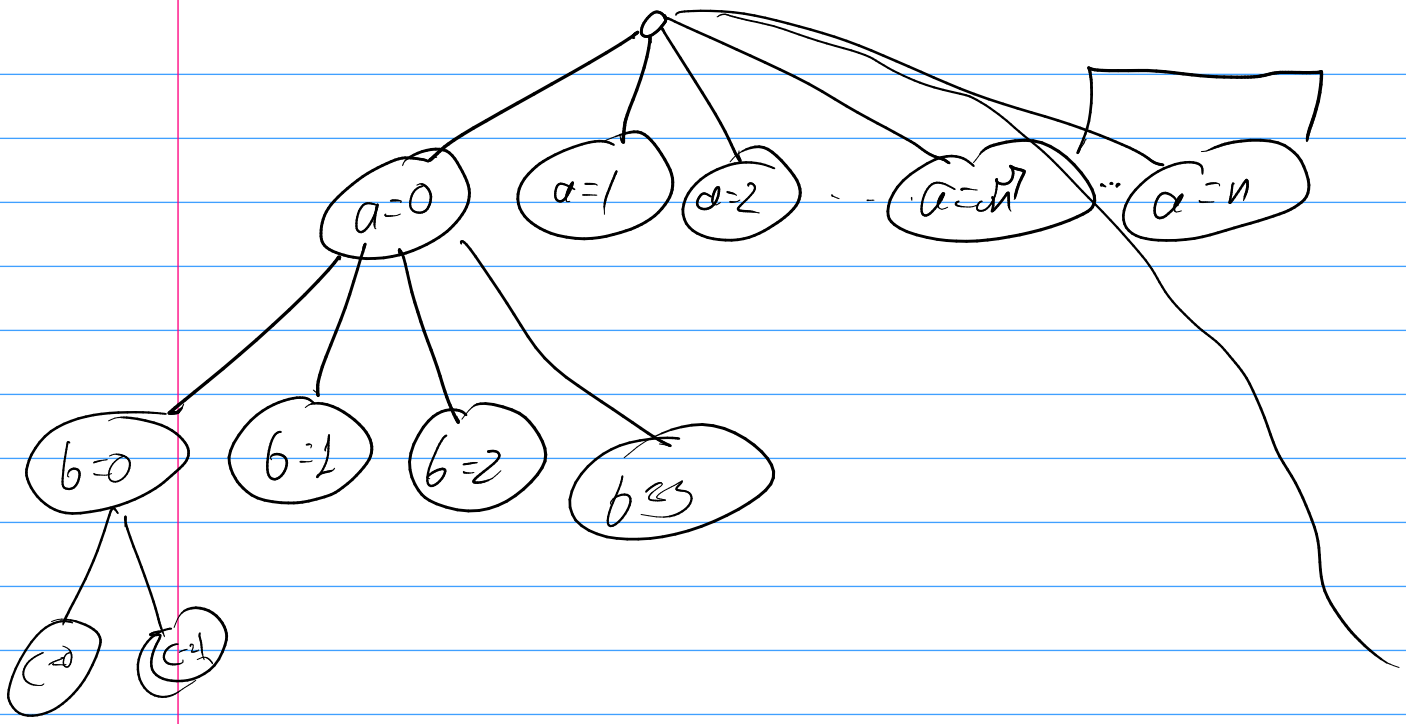
$O(n)$ for

alg A:
alg B
alg C

$O(n) + O(m) = \max(n, m)$

$O(f(n)) \cdot O(g(n)) = O(f(n) \cdot g(n))$

```
for ( i=0 ; i<n ; i++) -> n pasos
    for (j=0 ; j<m ; j++) -> m pasos
```
} n · m


a=0
a=1
a=2
a=n-1
a=n
b=0
b=1
b=2
b≥3
c=0
c=1