509. Fibonacci Number

The Fibonacci numbers, commonly denoted `F(n)` form a sequence, called the Fibonacci sequence, such that each number is the sum of the two preceding ones, starting from `0` and `1`. That is,

```
F(0) = 0, F(1) = 1
F(n) = F(n - 1) + F(n - 2), for n > 1.
```

Given `n`, calculate `F(n)`.

Example 1:

```
Input: n = 2
Output: 1
Explanation: F(2) = F(1) + F(0) = 1 + 0 = 1.
```

Example 2:

```
Input: n = 3
Output: 2
Explanation: F(3) = F(2) + F(1) = 1 + 1 = 2.
```

Example 3:

```
Input: n = 4
Output: 3
Explanation: F(4) = F(3) + F(2) = 2 + 1 = 3.
```

Constraints:

- `0 <= n <= 30`
- ```
  class Solution:
      def fib(self, n: int) -> int:
          if n==0 or n==1:
              return n
          ans = [-1]*(n+1)
          ans[0] = 0
          ans[1] = 1
          self.fibUtil(ans,n)
          return ans[n]
  ```
  ```

```
def fibUtil(self,res,n):
    if n<0:
        return 0
    if res[n]!=-1:
        return res[n]
    res[n]=self.fibUtil(res,n-1)+self.fibUtil(res,n-2)
    return res[n]
```