```c
int fibonacci(int index)
{
    int re = -1,arr[3] = {1,1,2};

    if(index < 2) {
        re = arr[index];
    }else {
        for( int j = 0; j < index - 2; j++) {
            arr[0] = arr[1] + arr[2];
            arr[1] = arr[2];
            arr[2] = arr[0];
        }
        re = arr[2];
    }

    return re;
}
```

递归　　　　记忆化搜索　　　　递推