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//
//  main.cpp
//  C++ Terminal
//
//  Created by Jiaqi Li on 2019/5/29.
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// fibonacci sequence calculator
// beware of overflow

#include <iostream>

int fib(int n, int a)
{
    int *fibarr;
    int arr[n+1];
    fibarr = & arr[a];
    arr[0] = 0;
    arr[1] = 1;
    for(int i=2 ; i<n+1; ++i){
        arr[i]= arr[i-1] + arr[i-2];
    }
    return *fibarr;
}

int main()
{
    int n;
    //single element ver. int a;
    //single element ver. int c;
    std::cout << "Please enter the sequence length: ";
    std::cin >> n;
    int woz[n+1];
    //single element ver. std::cout << "Please enter which element you'd
    like to see: ";
    //single element ver. std::cin >> a;
    //single element ver. c = fib(n,a);
    //single element ver. std::cout << c << ".\n";
    for(int a = 0; a<n+1; ++a){
        woz[a] = fib(n,a);
        std::cout << woz[a] << ".\n";
    }

    return 0;
}

```