/\* Program; FibSum.c

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Synopsis: Program that calculates the sum of the first 20 Fibonacci numbers.

Fibonacci numbers are stored in integer array.

Program calls a Fibonacci function and a sum function

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#include <stdio.h>

int main (void) {

int fib[20];

int size = 20;

int result = 0;

long int sum(int array[], int num);

result = sum(fib[20], size);

printf ("%i\n", result);

return 0;

}

int Fibonacci(int array[], int num)

{

int i;

int fibo[100] = {0};

for (i = 0; i < 2; i++)

fibo[i] = i;

for (i = 2; i < 100; i++)

fibo[i] = fibo[i-2] + fibo[i-1];

for (i = 0; i < num; i++)

array[i] = fibo[i];

return array;

}

long int sum(int array[], int num)

{

int i;

int arraySum = 0;

int Fibonacci(int array[], int num);

Fibonacci(&array[num], num);

for (i = 0; i < num; i++)

arraySum += array[i];

return arraySum;

}