

ME/HCI/CS/CprE 557 - Computer Graphics

Assignment 2

Programming and Geometric Modeling

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Problem 1

1. Explain each single line of the code.

Answer:

Please see the code “**main.cpp**” in the folder “Homewrok_2\p1”.

2. This code causes an error when one try to compile/link it. What is wrong?

Answer:

(1) The datatype of “**myFunction**” (New name is “**GetFibonacci**”) should be **int** instead of **double**.

(2) There should be a function prototype for “**myFunction**” before the **main** function. Or we can put the whole function “**myFunction**” before the **main** function as shown in the code “**main.cpp**”.

3. What is the overall functionality? Rename the function.

Answer:

The overall functionality is to find the specific number in the **Fibonacci sequence**. The input of the function “**myFunction**” is an integer **n** and it will also return an integer.

Fibonacci sequence is as below:

0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377...

In the **For** loop in “**myFunction**”, **j** records each number of Fibonacci sequence as **k** increases. If we input **n**, the output will be the **(n+3)th** number in the Fibonacci sequence above.

So I rename the function to be “**GetFibonacci**”.

4. Which value is stored in p after the function jumps back into the main function?

The value is 144.