

MS-3803
Program #1
Arrays, Methods and Sequences

Date: Thursday, November 30, 2006

Due: Thursday, December 7, 2006

As a review of arrays from Chapter 7 (and MS-382) write a Java program that populates an array with the first 20 Fibonacci numbers. The Fibonacci number sequence is defined as follows:

$$\text{Fib}(0) = 0$$

$$\text{Fib}(1) = 1$$

$$\text{Fib}(2) = \text{Fib}(0) + \text{Fib}(1)$$

...

$$\text{Fib}(i) = \text{Fib}(i-2) + \text{Fib}(i-1)$$

Populate a 20 element array with the first 20 Fibonacci numbers and print the contents of the array to the screen. Write a main method and two “helper” methods in your class named ‘fib()’ and ‘print()’. The fib() method is passed the value of i above and returns the i^{th} Fibonacci number. The print() method is passed an array to print to the console.