Pg. 228 – 230 Java Programming *A comprehensive Introduction*

**Section 1: Define**

Recursion

Recursion is a basic programming technique you in which method calls itself to solve some problem. A method that uses this technique is recursive.

Base Case:

The base case is to terminate the loop(avoid becoming an infinite recursion). There’s no standard in the base case, any input that is simple enough to be solved exactly can be choosen as one.

Or the base case is something starting off a value with. For example in a Fibonacci sequence, the base case is 0 and 1, the starting value.

Task 1:

The fibonacci sequence is a famous bit of mathematics, and it happens to have a recursive definition. The first two values in the sequence are 0 and 1 (essentially 2 base cases). Each subsequent value is the sum of the previous two values, so the whole sequence is: 0, 1, 1, 2, 3, 5, 8, 13, 21 and so on. Define a recursive fibonacci(n) method that returns the nth fibonacci number, with n=0 representing the start of the sequence.

Allow the user to input n.

ex. n = 8

0, 1, 1, 2, 3, 5, 8, 13

ex. n = 9

0, 1, 1, 2, 3, 5, 8, 13, 21

Use return method

Need “programmer created class structure”

Attach Snipping photos of source code and output.





