1:The Fibonacci sequence is defined as a sequence of integers starting with 1 and 1, where each

subsequent value is the sum of the preceding two. I.e.

f(0) = 1

f(1) = 1

f(n) = f(n-1) + f(n-2) where n >= 2

Write a program in a language of your choice to calculate the sum of the first 100 even-valued

Fibonacci numbers

2: Define a generator which generates the positive integers up to and including a supplied value

which are divisible by another supplied positive integer and use it to calculate the sum of all

positive integers less than 102030 which are divisible by 3

3: Write a function which is passed an integer, n, and returns a list of n lists

such that: f(0) returns []

f(1) returns [[1]]

f(2) returns [[1], [1,2]]

f(3) returns [[1], [1,2], [1,2,3]] etc.