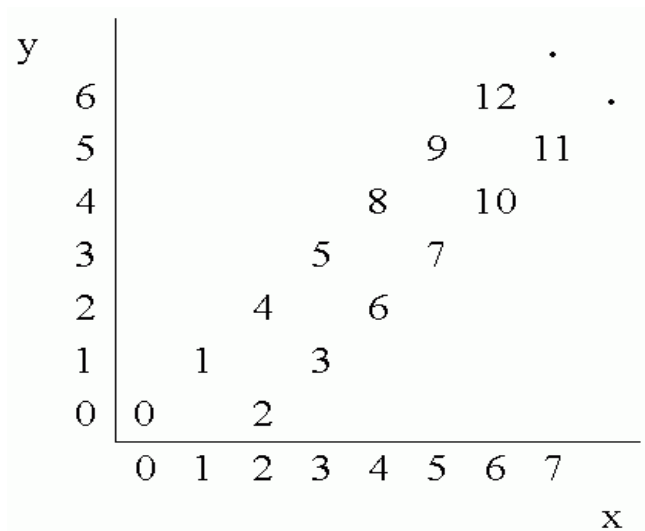


1. Draw a flowchart to Print all numbers less than N which are part of Fibonacci Series
2. Draw a flowchart to take two numbers and print their GCD.
3. Draw a flowchart to print first 20 terms of series  $3n+2$  which are not multiples of 4.
4. Given N numbers, find sum of all numbers which are divisible by 5 but not by 3.
5. Write a pseudo-code which reads N from user and prints all prime numbers from 2 to N.
6. Write pseudo-codes which reads number of lines N and prints the following patterns.

a) For N = 7	b) For N = 5	c) For N = 5
<pre>       *      ***     *****    *****   *****  *****   ***    *</pre>	<pre> 1 2 6 3 7 10 4 8 11 13 5 9 12 14 15</pre>	<pre> 1      1 12     21 123    321 1234   4321 1234554321</pre>

7. The captain of the ship TITANIC is a little .... off the track. He needs to select the crew for the ship. But everyone seems to be eligible. So to test their intelligence, he plays a game. The contestants have to stand in a line. They are given the numbers in the order in which they stand, starting from 1. The captain then removes all the contestants that are standing at an odd position.  
Initially, standing people have numbers - 1,2,3,4,5...  
After first pass, people left are - 2,4,...  
After second pass - 4,...  
And so on.  
You want to board the ship as a crew member. Write a pseudocode which takes total number of applicants for a position, and prints the best place to stand in the line so that you are selected.
8. Starting from point (0,0) on a plane, we have written all non-negative integers 0, 1, 2,... as shown in the figure. For example, 1, 2, and 3 has been written at points (1,1), (2,0), and (3, 1) respectively and this pattern has continued.



You are to write a pseudo-code that reads the coordinates of a point  $(x, y)$ , and writes the number (if any) that has been written at that point.  $(x, y)$  coordinates in the input are in the range 0...100000