**LOGICAL AND CRITICAL THINKING**

EVENT: ALGOVATE

DATE: 13TH MARCH, 2016

LEVEL: MIDDLE SCHOOL

**PROBLEM STATEMENT:**

An arithmetic progression is a series of numbers in which the next number is obtained by adding a fixed number to the previous number.

For example, look the series given below.

3,7,11,15,19,23.

The starting term is 3. The next term 7 is obtained by adding 4 to 3. The third term 11 is obtained by adding 4 to 7. Each term is obtained by adding a particular no. to the previous term.

The first term is called the initial term. The number that is added is called common difference and the total no. of terms is called no. of terms.

In the above example, 3 is the first term, 4 is the common difference and the no. of terms is 6.

Write an algorithm and draw a flow chart which takes as input three things: the first term, the common difference and total no. of terms. Print the series.

For example id the user inputs as follows:

First term = 2

Common difference = 6

Total terms = 8

Your algorithm should print

2, 8,14,20,28,34,40,48

The algorithm should mention/classify the steps as input/output, process or decision making.

Use appropriate boxes in the flowchart.

**BEST OF LUCK ☺**