**LOGICAL AND CRITICAL THINKING**

EVENT: ALGOVATE

DATE: 13TH MARCH, 2016

LEVEL: SECONDARY SCHOOL

**PROBLEM STATEMENT:**

An Armstrong no. is such that when you take the digits of the number separately, cube them and add them together, the result is the same number.

For example the number 371.

3^3 = 27

7^3 = 343

1^3 = 1

If we add 27, 342 and 1 we get 371.

Write an algorithm and draw a flow chart to see if a given no. is Armstrong or not. The algorithm should identify whether the given number is Armstrong in the least no. of iterations. The number is in the range 0 to 9999.

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

Use appropriate boxes in the flowchart.

**BEST OF LUCK ☺**