Reader's Sign _____ Date _____

ORANGE

ASSIGNMENT–2

Marks Obtained: _____

Student's Name: _____ Section: _____

Roll Number: _____ Date: _____

A. Fill in the blanks.

1. The missing term in the sequence 1, 10, ____, 1000, 10000 is .....
2. ..... is the smallest number which follows both square and cubic pattern.
3. If a number is subtracted from its square, the remaining number will always be an .....
4. The Koch snowflake is a ..... curve that starts with an ..... triangle.
5. Virahanka numbers are 1, 2, ..., 5,....., 13, 21, 34, ...

B. Label True or False.

1. The 10th term in the sequence 0, 1, 1, 2, 3, 5, 8, … is 55. .....
2. 8 can be represented as a power of 3. .....
3. The sum of two consecutive triangular numbers makes a square number. .....
4. Hexagonal numbers and centred hexagonal numbers are different. .....
5. Pentagonal numbers are numbers that can be represented in the shape of a pentagon. .....

C. Match the following.

Column I	Column II
1. Powers of 3	(*a*) 1, 5, 12, 22, 35, ...
2. Consecutive odd numbers	(*b*) 8, 27, 64, ...
3. Hexagonal numbers	(*c*) 1, 3, 5, 7, 9, 11, ...
4. Pentagonal numbers	(*d*) 1, 3, 9, 27, 81, 243, ...
5. Cube numbers	(*e*) 1, 6, 15, 28, ...

D. Do as directed.

1. A frog wants to reach the top of a well that is 10 steps high. It can climb either 1 step each time or maximum 2 steps at a time. In how many ways can the frog reach the top of the well?
2. How many little squares are there in each shape of the sequence of stacked squares from iterations 1 to 6? Also, name the pattern observed.