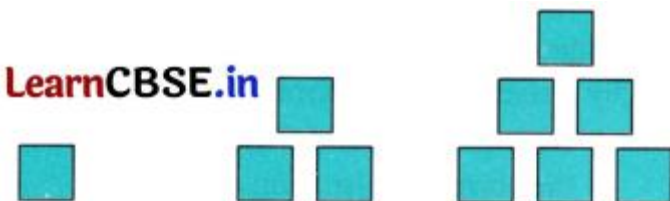
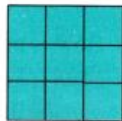


BCM SCHOOL, BASANT AVENUE, DUGRI, LUDHIANA.
CLASS – VI (MATHEMATICS)
ASSIGNMENT- CHAPTER 1
PATTERNS IN MATHEMATICS

SECTION-A (MULTIPLE CHOICE QUESTIONS)	
1	1. Which visual representation technique is used to understand number sequence in mathematics? (a) Tables (b) Graphs (c) Pictures (d) Equations
2	The sequence 1, 3, 6, 10, 15,... is called as (a) Squares (b) Counting Numbers (c) Triangular Numbers (d) Odd Numbers
3	Assertion (A) :The sequence 1, 3, 6, 10,... is called Triangular Numbers. Reason (R) :The sequence 1, 4, 9, 16,... is called squares. (a) Both A and R are true and R is the correct explanation of A. (b) Both A and R are true but R is not the correct explanation of A. (c) A is true but R is false. (d) A is false but R is true.
SECTION-B (2 MARKS QUESTIONS)	
4	Find the pattern and fill in the blanks: 1, 4, 9, 16, __, __ What is the rule behind this pattern?
5	Show the square number 64 using dots.
SECTION – C (3 MARKS QUESTIONS)	
6	Identify the patterns and write the next three numbers to complete the given patterns. (a) 1, 3, 6, 10, 15,,, (b) 1, 4, 9, 16, 25, ..., ..., (c) 1, 8, 27, 64, 125, ..., ...,
7	Is 15 a triangular number, a square number or both. Justify your answer with pictures.
SECTION – D (5 MARKS QUESTIONS)	
8	Represent first 5 hexagonal numbers pictorially.
9	What is 'Virahanka numbers'?
SECTION – E (CASE STUDY)	
10	<p>Rima and Diva are playing with square counters.</p> <p>Rima arranges her counters as follows:</p> <div style="text-align: center;">  </div>

Diva arranges the counters as follows:

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One of their friends, Rohan, says these are showing the number patterns.

Based on the above information, answer the following questions.

- (a) What are the number patterns they are showing?
- (b) If Rima's arrangement is representing the triangular numbers, then what will be her next two arrangements if she follows the same pattern?
- (c) What is Diva's next arrangement with counters if she follows the same pattern?