




## INDIAN SCHOOL NIZWA-WORKSHEET

	<b>MATHEMATICS</b>	
	<b>CH - 1 PATTERNS IN MATHEMATICS</b>	
<b>Name:</b> _____	<b>Date:</b> _____	<b>Class: VI Sec:</b> ___

1. What is the next number in the sequence 3, 6, 9, 12, \_\_\_\_\_
2. What is the next number in the sequence: 1, 2, 4, 8, \_\_\_\_\_
3. What shape comes next in the pattern? 
4. What comes next in the sequence 5, 10, 15, 20, \_\_\_\_\_
5. Identify the appropriate rule for the given sequences:
  - a) 5, 10, 15, 20, .....
  - b) 2, 6, 10, 14, .....
6. Give the pictorial representation of the number sequence 3, 6, 9, 12, .....
7. Which sequence do you get when you start to add two consecutive even numbers minus 1?
8. What is the 4<sup>th</sup> shape in a pattern when we start with a triangle and the number of sides increases by 1 with each shape?
9. What is the 7<sup>th</sup> number in the sequence 1, 4, 9, 16, ....
10. Create a pattern using the rule 'Add 5 to the previous number' starting with 2.
11. Imagine you are filling a jar with marbles. Each time, you add 3 more marbles than before. If you start with 2 marbles, how many marbles will you have after 5 rounds?
12. In a parking lot, the number of cars parked increased by 7 each hour (7, 14, 21,...). How many cars will be parked after 8 hours?
13. A gardener is planning a flower garden. She decides to plant the flowers in rows where the number of flowers in each row follows a pattern.

Based on the above information, answer the following questions:

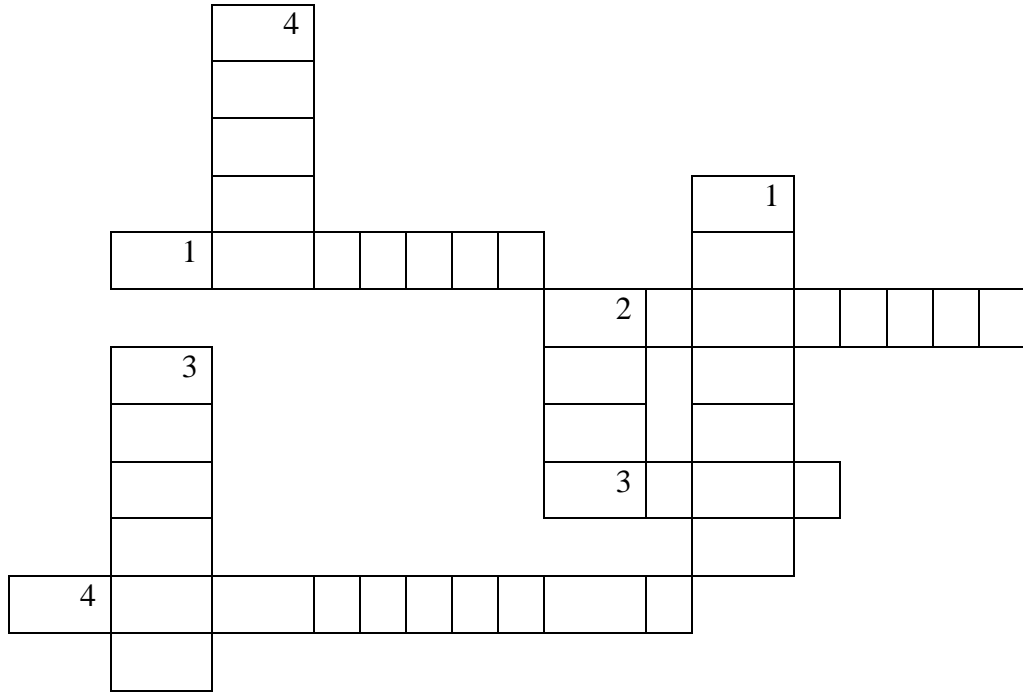
  - i) In the first row, she plants two flowers, in the second row 4 flowers and in the third row 6 flowers. If she continues this pattern, how many flowers will be in the 7<sup>th</sup> row?
    - a) 14
    - b) 10
    - c) 12
    - d) 8
  - ii) How many total flowers will she have planted by the time she finishes the 5<sup>th</sup> row?
    - a) 10
    - b) 20
    - c) 30
    - d) 40
  - iii) If the pattern changes after the 5<sup>th</sup> row, so that each subsequent row has one less flower than the previous row, how many flowers will be in the 10<sup>th</sup> row?
    - a) 7
    - b) 5
    - c) 6
    - d) 8

14. A builder is constructing a wall using bricks. He starts by placing 1 brick in the first row, 3 bricks in the second row and 5 bricks in the third row.

Based on the above information, answer the following questions.

- i) If this pattern continuous, how many bricks will be in the 6<sup>th</sup> row?
- ii) How many bricks are needed to build the wall up to the 7<sup>th</sup> row?

15. Fill in the boxes:



Across:

1. A polygon which has all its sides equal and so all angles are equal is called \_\_\_\_\_ polygon.
2. 1, 2, 3, 4, ..... are called \_\_\_\_\_ numbers.
3. 2, 4, 6, 8, 10, 12,... are called \_\_\_\_\_ numbers.
4. 1, 3, 6, 10, 15, 21,...are called \_\_\_\_\_ numbers.

Down:

1. 1, 4, 9, 16, 25, ..... are called \_\_\_\_\_
2. 1, 8, 27, 64, 125,... Are called \_\_\_\_\_
3. On adding the counting numbers up and down, we get the sequence of \_\_\_\_\_ numbers.
4. 0, 1, 2, 3, 4,..... is the sequence of \_\_\_\_\_ numbers.