INDIAN SCHOOL AL WADI AL KABIR
Class VI, Mathematics
PATTERNS IN MATHEMATICS
WORKSHEET (2026-27)

Multiple Choice Questions

Q.1 The next term in the sequence 1, 2, 3, 5, 8…

	A	13	B	15	C	17	D	10

Q.2 A pattern follows the rule: Multiply by 2 and add 1. If the first number is 2, what is the fourth number?

	A	15	B	21	C	19	D	23

Q.3 Identify the sequence of numbers: 1,4,9,25, 36, …

	A	Even numbers	B	Prime numbers	C	Square numbers	D	Odd numbers

Q.4 The next number in the sequence 1, 7, 19, 37…is:

	A	61	B	64	C	56	D	47

Q.5 Identify the triangular number pattern among the following:

	A	1, 4, 9, 16…	B	1,3, 6, 10, 15..	C	1, 8, 27, 64, …..	D	1, 3, 5,7, 9, ….

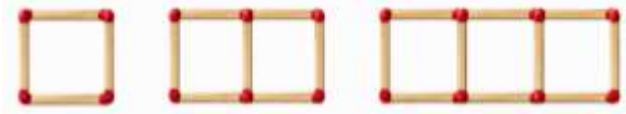
Q.6 The next term in the sequence 100, 95, 85, 70, 50, _____

	A	35	B	30	C	25	D	20

Q.7 Find the number that does not belong to the pattern: 4, 9, 16, 25, 36, 48, 64

	A	64	B	9	C	25	D	48

Q.8 Find the number of matchsticks required in the 6th term of the matchstick pattern:



	A	25	B	19	C	36	D	25

Q.9



Observe the pattern and choose the next number in the empty box:

	A	98765	B	9785	C	98756	D	98576

Q.10 The sum of consecutive hexagonal numbers starting from 1 gives a:

A	Square number	B	Cube number	C	Even number	D	Prime number

LONG ANSWER QUESTIONS:

Q.11 A gardener plants trees in rows. The first row has 3 trees, the second row has 6 trees, the third row has 9 trees, and the fourth row has 12 trees.
a) How many trees will be there in the 6th row?
b) How many trees will be in the 10th row?
c) Explain how the pattern grows.

Q.12 Identify and name the sequence in the following:

a)1,4,9,16---------

b)1,3,6,10----------

c) 1,8,27----------

d) 1,7,19,37--------

Q.13 A number pattern starts as follows: 2, 6, 12, 20, 30, ...
1. Find the next two terms.
2. Describe how the pattern is formed.
3. Find the 8th term.

Q.14 Complete the given table:

Number pattern	1st term	2nd term	3rd term	4th term	5th term
i)Square numbers	1	4	9	_____	_____
ii)Powers of 2	1	2	4	_____	_____
iii)Virahanka numbers	1	2	3	_____	_____
iv)Triangular numbers	1	3	6	_____	_____

Q.15	**CASE STUDY:**The seats in a small auditorium are arranged in rows. The first row has 2 seats, the second row has 4 seats, the third row has 6 seats, and the fourth row has 8 seats.  a) How many seats will the 7th row have? b) How many seats are there altogether in the first four rows? c) If the pattern continues, will the 10th row have an even or odd number of seats? Explain.

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ANSWERS

1.	A	**2.**	D	**3.**	C	**4.**	A
5.	B	**6.**	C	**7.**	D	**8.**	B
9.	A	**10.**	B	**11.**	a)18 trees b) 30 trees c) (No. of the row) × 3	**12.**	a) Square numbers b) Triangular numbers c)Cube numbers d) hexagonal numbers
13.	i) 42,56 ii)adding consecutive even number starting from 4. iii)72	**14.**	i) 16,25 ii) 8, 16 iii) 5,8 iv) 10,15	**15.**	a) 14 seats b) 20 seats c) Even number		