



INDIAN SCHOOL AL WADI AL KABIR
Class VI, Mathematics
PATTERNS IN NUMBERS
WORKSHEET (2025-26)

Multiple Choice Questions

Q.1	The next term in the sequence 0, 1, 1, 2, 3, 5, ... is:							
	A	7	B	8	C	9	D	10
Q.2	Hexagonal numbers are _____							
	A	1, 3, 6, 10...	B	1, 4, 9, 16...	C	1, 8, 27, 64.....	D	1, 7, 19, 37...
Q.3	If you start with the number 1 and keep adding 2, the sequence you are creating is:							
	A	Even numbers	B	Prime numbers	C	Odd numbers	D	Square numbers
Q.4	The next number in the sequence 1, 4, 9,16... is:							
	A	20	B	25	C	24	D	30
Q.5	The sequence 1, 3, 6, 10, 15 ,... is called as:							
	A	Triangular Numbers	B	Counting Numbers	C	Squares	D	Odd Numbers
Q.6	Which of the following is a triangular number?							
	A	5	B	10	C	12	D	16
Q.7	What sequence do we get when we start adding up Odd numbers?							
	A	Squares	B	Cubes	C	Triangular Numbers	D	Even Numbers
Q.8	The 6 th sequence in the given figure represents the number:							
	A	25	B	36	C	21	D	25
Q.9	Virahanka numbers are:							
	A	1,3,6, 10, 15...	B	1,2, 3, 5, 8...	C	1, 8,27,64,.....	D	1, 7, 19, 37...

Q.10 The next number in the sequence is: 25, 19, 13, 7, ____

A	5	B	4	C	1	D	0
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LONG ANSWER QUESTIONS:

Q.11 State the largest number less than 25 which is:
 a) A prime number b) A square number c) A triangular number

Q.12 I have a sequence where each term is the sum of the two terms before it. I have forgotten the first three numbers in the sequence, but the fourth to eighth numbers are 4,7,11,18,29. Find the tenth number.

Q.13 Find the next three numbers in the following sequences:
 a) 8, 11, 14, 17, 20, ---, ---, ---
 b) 4, 7, 12, 19, 28, ---, ---, ---,

Q.14 Complete the given crossword puzzle

Directions:
Across:
 1. The sequence 1, 1+6, 1+6+12, 1+6+12+18, ... represents _____.
 2. The set of counting numbers along with 0 is known as _____ numbers.

Down:
 3. The number sequence 1, 3, 6, 10, 15, represents _____.
 4. The sequence 1, 1+2+1, 1+2+3+2+1, represents _____.
 5. The number sequence 1, 8, 27, 64, 125, represents _____.

Q.15 **CASE STUDY**
 One day during Math period the teacher organized a game based on number theory using number cards. She prepared 50 number cards numbering from 1 to 50 and asked the class to put the cards in four boxes, labelled as triangular numbers, square numbers, hexagonal numbers and cube numbers. Based on the information answer the following questions:
 a) If Rohan picks the number card of 25, then in which box will he drop the card?
 b) If Riya wants to choose the highest hexagonal number, which number will she pick up?
 c) If Soham chooses the card of number which is both triangular and square number, then which number card has he chosen?

ANSWERS

1) B 8	2) D	3) C	4) B	5) A	6) B	7) A	8) C	9) B	10) C
11) a) 23 b) 16 c) 21	12) 76	13) a) 23,26,29 b) 39,52,67	14) 1.Hexagonal numbers, 2. whole, 3. triangle, 4. square, 5. cubes	15) a) square numbers box b) 37 c) 36					