

**INTERNATIONAL INDIAN SCHOOL**

**BURAI DAH**

Worksheet For The Academic Year 2025-26

**CLASS: VI    SUBJECT: Mathematics    DATE: 31/08/2025**

**LESSON-3   Number Play**

- 1) In a grid , the cell with the largest number than the neighbours above, below, left and right is called a super cell.
- 2) The number 6174 is called the Kaprekar constant.
- 3) In a collatz conjecture , if the number in the sequence is even we divide it by 2 but if the number is odd we multiply it by 3 and add 1 to get the next number in the sequence.
- 4) Using the digits 3,4,5,6,7 make a three by three number grid of 5-digit numbers having four supercells in it.
- 5) In the given number grids colour the supercells:

a)

452	373	251	582	754	672	198
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b)

2600	5792	3700
1928	4500	5000
7200	5400	6000

- 6) How many times does 7 occur between a) 1 to 100    b) 1 to 1000.
- 7) Make all possible Palindromic 3-digit numbers using 6,7,8.

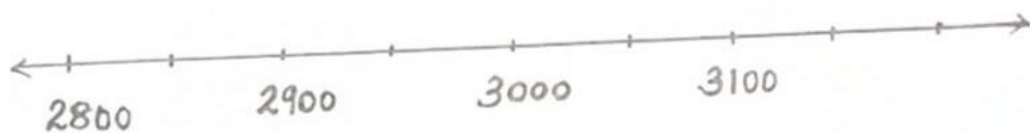
- 8) Write all possible 2-digit numbers whose digits add up to 17.
- 9) Write the largest and smallest 5-digit number whose digit sum is 15.
- 10) Take the number 57 and use reversing and adding pattern till you get a Palindrome.
- 11) Find the number: I am an odd Palindromic 5-digit number.  
My 'u' digit is triple my 't' digit and my 'h' digit is five times my 't' digit.
- 12) Find the Kaprekar constant using the digits 1,2,3,4.
- 13) Raj thinks of the digits 5,2,6,3 and forms the largest number 6532 and the Smallest number 2356. Their sum is 8888 and difference is 4176. Hence Form any two 4-digit numbers whose: a) sum is greater than 8888  
b) difference is greater than 4176.
- 14) The time now is 02:15. What will be the next palindromic time shown.  
After how many minutes does it appear. When will the next palindromic time be shown after that?
- 15) Write the largest and the smallest 5-digit number between 40,000 and 80,000 such that all its digits are even. Which even number is closest to 80,000 (before or after it)?
- 16) Using the cards 21000 , 20000 , 19000 , 539 , 439 , 100 try to get the following numbers under the operations of mathematics:  
a) 39339    b) 2639
- 17) Form a number pattern to get the sum of the numbers as a number between 200 and 350.
- 18) Form a collatz conjecture sequence starting with 70.
- 19) Estimate: a)  $645 + 876$     b)  $812 - 493$
- 20) Write one 5-digit number and two 3-digit numbers whose sum is 24530.
- 21) Write a 4-digit palindrome whose sum of the digits is 16.
- 22) Write an example of things that count:  
a) a few tens    b) a few hundreds    c) a few ten thousands

23) Play a game taking players A and B using addition of digits 1,2,3. Find the player according to your play who wins the game to get 21 first.

24) Label the given number lines:



25) In the given line, mark the number 3150.



## ANSWERS

4)

45673	67543	34576
73546	34567	75643
36547	76543	35476

5) Supercells: a) 452 , 754    b) 5792 , 6000 , 7200

6) a) 10    b) 300

7) 666 , 676 , 686 , 777 , 767 , 787 , 888 , 868 , 878

8) 98 , 89

9) Largest – 96000 , Smallest – 11139

10) Do the steps. Palindrome obtained – 363

11) 31513

13)  $7532 + 3562 = 11094$  and  $7532 - 2356 = 5176$

14) 02:20 obtained after 5 minutes

Next palindromic time is 03:30 after 70 minutes

15) Largest – 68888 , Smallest – 40002 & Closest – 80002

16) a)  $20000 + 19000 + 439 - 100 = 39339$

b)  $21000 - 19000 + 539 + 100 = 2639$

17) The sum of the number pattern = 310

		50		
	40		40	
30		30		30
	40		40	
		50		

19) a)  $600 + 900 = 1500$     b)  $800 - 500 = 300$

20)  $24000 + 300 + 230$

21) 1771 or 2662