

INTERNATIONAL INDIAN SCHOOL

BURAI DAH

Worksheet For The Academic Year 2026-27

CLASS: VI SUBJECT: Mathematics DATE: 02/07/2026

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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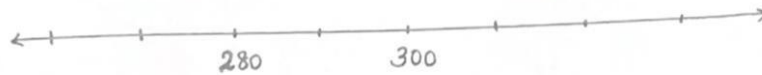
b)

2600	5792	3700
1928	4500	5000
7200	5400	6000

- 6) How many times does 7 occur between a) 1 to 100
- 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.

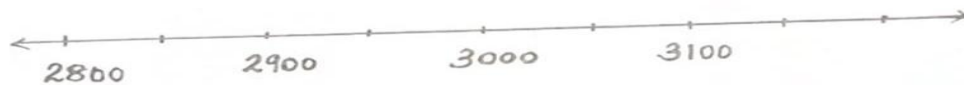
- 9) Write the largest and smallest 5-digit number whose digit sum is 15.
- 10) Take the number 73 and use reversing and adding pattern till you get a Palindrome.
- 11) Find the number: I am an odd Palindromic 5-digit number.
My 'u' digit is triple my 't' digit and my 'h' digit is five times my 't' digit.
- 12) Find the Kaprekar constant using the digits 1994 .
- 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 a) 70 b) 128
- 19) Estimate: a) $645 + 876$ b) $812 \div 493$
- 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) Label the given number



lines:

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



25) A collatz conjecture sequence ends with 1.

26) The cell in the centre is a supercell. Interchange just 2 digits to get four Supercells in the table.

2600	65792	3700
51928	74500	65000
7200	55400	6000

27) Estimate the amount you need to carry for shopping to buy one litre of milk, one litre of laban , one pack of bread , 15 eggs , 1 kg of apple and one bottle of jam.

ANSWERS

4)

45673	67543	34576
73546	34567	75643
36547	76543	35476

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

6) a) 10

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

8) 98 , 89

9) Largest – 96000 , Smallest – 11139

10) Do the steps. Palindrome obtained – 121

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

26) Exchange 4 and 7.