## NCERT SOLUTIONS

CLASS - 4th

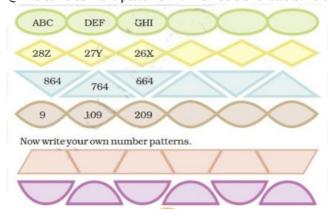


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Class: 4th
Subject: Math
Chapter: 10

Chapter Name: Play With Patterns

Q1 We can also make patterns with numbers and letters. Below are a few examples. Can you take them forward?



Answer. By following the given pattern, we can take them forward as under:

ABC DEF		GHI	JKL	MNO	PQR		
28Z	27Y	26X	25W	24V	23U		
864	764	664	564	464	364		
0	109	209	309	409	509		

Page: 109, Block Name: Play With Patterns

Q2 Now write your own number patterns.



Answer.

11	22	33	44	55	66

Page: 109, Block Name: Play With Patterns

Q1 Now you try writing the letters - A, B, C in the box so that no letter comes twice in any line.

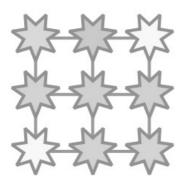


Answer. After writing the letters- A, B, C in the box so that no letter comes twice in any line, the filled up box is as shown:

A	В	С
С	A	В
В	С	A

Page: 110, Block Name: No Number Comes Twice

Q1 Now you fill these stars. Use numbers 1-9 and the that the numbers on each line add up to 15.



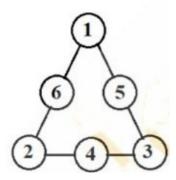
Answer.

1	4	6
7	5	3
2	8	9

Page: 111, Block Name: Magic Patterns

Q1 Now use numbers 1 – 6 to make your own magic triangle.

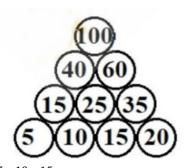
Answer. The number 1-6 can be filled in these square boxes as shown so that the numbers each side add up to 10:



Page: 112, Block Name: Magic Triangle

Q1 Using the same rule, complete these number towers.

Answer.



5 + 10 = 15

15 + 20 = 35

15 + 25 = 40

25 + 35 = 60

40 + 60 = 100

48 20 28 8 12 16 3 5 7 9 1 2 3 4 5

1 + 2 = 3

2 + 3 = 5

3 + 4 = 7

4 + 5 = 9

3 + 5 = 8

5 + 7 = 12

7 + 9 = 16

8 + 12 = 20

12 + 16 = 28

Page: 113, Block Name: Number Towers

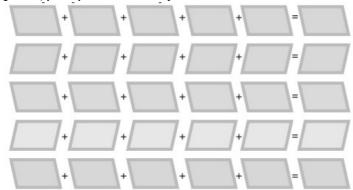
Q1 Now you write any number and the three numbers after that. Make a pattern using the rule.

Answer. Writing any number and the three numbers after that, we get the recorded in the box. Using the above rule, we find that we get the same sum.

11	12	13	3	14		
11	+	14	=	25		
12	+	13	=	25		

Page: 113, Block Name: The Same Sum Rule

Q1 Now, you try to make such a pattern with 5 numbers in order.



Answer.



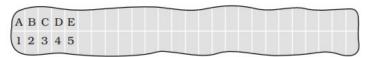
Page: 114, Block Name: Patterns with Addition

Q2 Does the sum grow by 5 each time?

Answer. Yes, the sum grows by 5 each time.

Page: 114, Block Name: Patterns with Addition

Q1 Complete this list of letters and numbers to help you.



Answer. The complete list of letters and numbers is as under:

A	В	C	D	Е	F	G	Н	Ι	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26

Page: 115, Block Name: Secret Messages

Q2 Teenu wants to write to his friend "Good Morning".

What will he write by using the same rule?



Answer. Teenu will write:



Page: 115, Block Name: Secret Messages

Q3 If we change the rule and write 1 in place of 'B', 3 rd in place of 'B', 3 in place of 'D' and so on, then how will be written: "Let Us Dance"?



Answer. It can be written as:



Page: 115, Block Name: Secret Messages

- Q1 Secret's Messages:
- (a) What was Kahuli's secret message?
- (b) What did Shablu and Jaggu write?
- (c) Use the same rule to write- "Meet me on the moon".

Answer. (a) His message is - WE ARE STUMPS.

(b) IFMMP! IPX BSF ZPV? Means HELLO! HOW ARE YOU? GJOF, UIBOL ZPV means FINE, THANK YOU.

XJMM ZPV QMBZ XJUI NF? means WILL YOU PLAY WITH ME?
(c) It can be written as NFFU NF PO UIF NPPO.

Page: 116, Block Name: Most Secret Messages

Q1 Now, Anisha is playing with this card. Draw what it will look upside down.



Answer. It will look like:



Page: 117, Block Name: Upside Down

Q1 Have you ever seen a floor with the tiles of shapes (given in book)?

Answer. Yes, I have seen a floor with tiles of these shapes.

Page: 117, Block Name: Floor Patterns