



# **NUMBER SERIES, CODING AND DECODING AND ODD MAN OUT**

**TRY YOURSELF** 

1.	If LOSE is	coded as	1357 an	d GAIN is	coded a	as 2468,	what do	figure	82146 f	or?
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- NGLAI (a)
- (b) NGLIA (c) GNLIA (d) GNLA

Sol.

```
(a) LOSE
                                                                 8 2 1 4 6
                                     GAIN
        \downarrow\downarrow\downarrow\downarrow\downarrow
                                     \downarrow \downarrow \downarrow \downarrow \downarrow Hence \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow
        1 3 5 7
                                                                   NGLAI
                                     2 4 6 8
        Code for 82146 is NGLAI
```

2. If PLAY is coded as 8123 and RHYME is coded as 49367. What will be code of MALE?

- (a)
- 6217
- (b) 6198
- (c) 6395
- (d) 6285

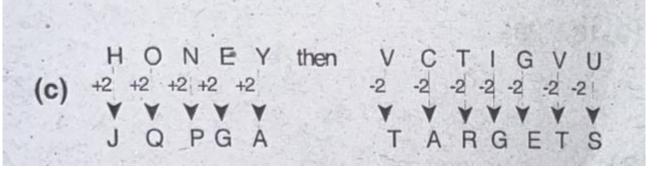
Sol.

- 3. Find out the next number in the following series 7,11,13,17,19,23,25, 29?
  - (a)
- (b) 31
- (c) 32
- (d) 33

Sol.

# (b) Given series 7, 11, 13, 17, 19, 23, 25, 29, 31

- 4. If HONEY is coded as JQPGA, which word is code as VCTIGVU?
- **CARPETS**
- (b) TRAPETS
- (c) TARGETS
- (d) UMBRELU



- 5. Find odd man out of the following series 15, 21,63, 81,69
  - (a)
- 15
- (b) 21
- (c) 63
- (d) 81

Sol. (d) 15, 21, 63, 81, 69

In this series only 81 is a Perfect square.

6. Find odd man out of the following series 7,9,13,17,19

- (a)
- (b) 9
- (c) 19
- (d) 13

Sol. (b) 7, 9, 13, 17, 19

Since only 9 is a perfect square and not prime No. So, 9 is the odd man out.

9-7-2

13-9-4

(11) - 7 = 413-11-2

17-13-4

17-13-4

19-17-2

19-17-2

Note:- If 11 is used at the place of 9, we get a perfect series.

7. Find the next number in the series: 7,23,47,119,167

- (a)
- 211
- (b) 223
- 287
- (d) 319

Sol.

(c) 7, 23, 47, 119, 167, 287

$$3^2 - 2 = 7$$

$$5^2 - 2 = 23$$

$$7^2 - 2 = 47$$

$$11^2 - 2 = 119$$

$$13^2 - 2 = 167$$

$$17^2 - 2 = 287$$

8. Which of the following is odd one 4,12,44,176, 890

- (a)
- (b) 12
- (c) 44
- (d) 176

Sol. (c) 4, 12, 44, 176, 890,

$$4 \times 2 + 4 = 12$$
.

$$176 \times 5 + 10 = 890$$
.

9. If in a Certain language, MADRAS is code as NBESBi', How is BOMBAY coded in that language?

- (a)
- **CPNCBX**
- (b) CPNCBZ
- (c) CPOCBZ
- (d) CQOCBZ

Sol. (b)

S B O  $+1 \downarrow \quad +1 \downarrow \quad$ C T S B

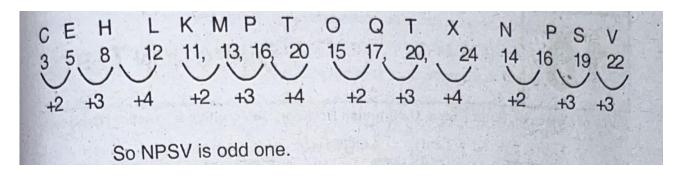
10. Which of the following is odd one

- (a)
- CEHL
- (b) KMPT (c) OQTX
- (d) NPSV



Sol.

(d)   
C E H L 
$$\rightarrow$$
 3, 5, 8, 12  
K M P T  $\rightarrow$  11, 13, 16, 20  
O Q T X  $\rightarrow$  15, 17, 20, 24,  
N P S V  $\rightarrow$  14, 16, 19, 22,



- 11. Find the missing figures; 4,16, 36, 64, 100, ?
  - (a) 144
- (b) 121
- (c) 49
- (d) 120

Sol.

(a) Given series

4, 16, 36, 64, 100, \_\_\_\_

 $2^2 = 4$ ,  $4^2 = 16$ ,  $6^2 = 36$ ,  $8^2 = 64$ ,  $10^2 = 100$ 

The series is of squares of even no.'s so after 100 it will be  $12^2 = 144$ 

- 12. If "MADRAS" is written as "NBESBT" then "DELHI" may be coded as:-
  - (a) EMMJI
- (b) JIFEM
- (c) EFMIJ
- (d) CDKGH

Sol. (c)

5

- 13. Find the odd man out 5,10,17, 27, 37,50,65?
  - (a)

- (b) 17
- (c) 27
- (d) 10

Sol.

(c) 
$$(2 \times 2) + 1 = 5$$
  
 $(3 \times 3) + 1 = 10$   
 $(4 \times 4) + 1 = 17$   
But  $(5 \times 5) + 1 \neq 27$   
 $(6 \times 6) + 1 = 37$   
So 27 is odd man out.

- 14. Complete the series 4, 16 \_\_\_\_\_\_256, 1024
  - (a)
- 32
- (b) 48
- (c) 64
- (d) 46

Sol. (c) 
$$4^1 = 4$$

$$4^2 = 4 \times 4 = 16$$

$$*4^3 = 4 \times 4 \times 4 = 64*$$

$$4^4 = 4 \times 4 \times 4 \times 4 = 256$$

$$4^5 = 4 \times 4 \times 4 \times 4 \times 4 = 1024$$

So, the third term of the series is 64.

- 15. If "SYSTEM" is coded as 131625; then 'TERMS' will be coded as:-
  - (a)
- 62251
- (b) 62451
- (c) 64251
- (d) 62415

Sol. (b)

In word "TERM" "R" is different. Code of R should be different out of 1, 2, 3, 5, 6. Hence code of R may be 0; 4, 7, 8, 9.

That is code for "TERMS" may be 62051; 62451; 62751; 62851; 62951. Clearly (b) 62451 is present in the option.

So; (b) is correct.

# **HOME WORK**

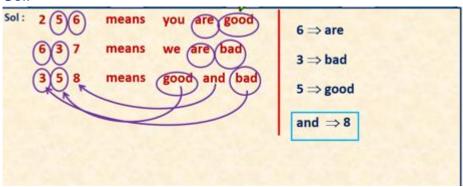
- 1. In a certain code, RIPPLE is written as 613382 and LIFE is written as 8192. How is PILLER written in that code?
  - (a) 318826

- (b) 318286
- (c) 618826
- (d) 338816

- Sol. Same as Classwork 1: Q.24
- 2. In a certain code '256' means 'you are good', '637' means 'we are bad' and '358' means 'good and bad'. Which of the following represents 'and' in that code?
  - (a)2

- (b) 5
- (c) 8
- (d) 3

Sol.



- 3. Find the odd man out,
  - 1, 5, 14, 30, 51,55, 91
  - (a) 5

(b) 55

- (c)
- 51 (d)
- 91

- Sol. Same as Classwork 1: Q.22
- 4. Find the missing value in the series 0, 2, 3, 6,10,17, 28, ?, 75.
  - (a) 58

- (b) 46
- (c) 48
- (d) 54

Sol

0,2,3,6,10,17,28,	2	75	(0)
0+2+1=3			
2+3+1=6			(18
3+6+1=10	1		
6+10+1=17	7. 0		
10+17+1=28			-
17+28+1=[46]-7(b) 28+46+1=75		(6)	



5. 
$$\frac{3}{8}, \frac{8}{19}, \frac{18}{41}, ?, \frac{78}{173}$$

(a)  $\frac{3}{8}$ 

(b)  $\frac{10}{87}$ 

(c)  $\frac{35}{86}$ 

(d)  $\frac{38}{85}$ 

Sol. Same as Classwork 1: Q.33

6. Find the odd man out of the following 6, 9,15, 21,24, 26, 30.

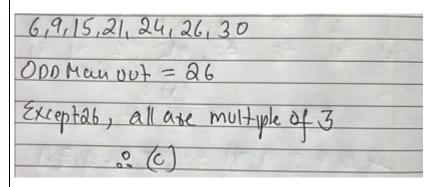
(a)30

(b) 24

(c) 26

(d) 9

Sol.



7. If HEALTH is written as IFBMUI, then how will NORTH be written in that code?

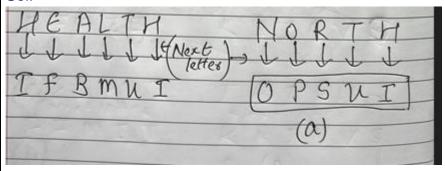
(a) OPSUI

(b) GSQNM

(c) FRPML

(d) IUPSO

Sol.



8. Find the wrong term in:

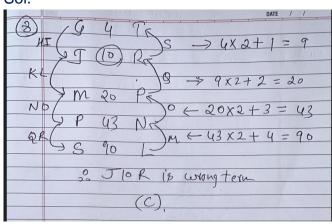
G4T, J10R, M20P, P43N, S90L

(a)M20P

(b) P43N

(c) J10R

(d) G4T





9. Find the next term 1,5, 21,57

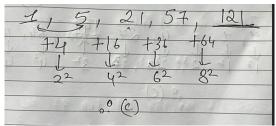
(a)105

(b) 138

(c) 121

(d) 101

Sol.



 $\frac{1}{2}, \frac{3}{4}, \frac{5}{8}, \frac{7}{16} =$ 

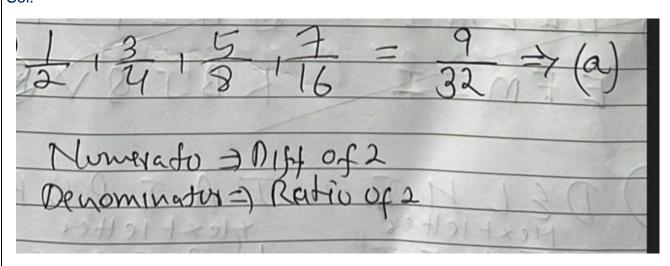
(a)9/32

(b) 10/17

(c) 11/34

(d) 12/35

Sol.



11. Find the missing term

P 3 C; R 5 F; T 8 I; V 12 L; \_\_\_\_\_?

(a)Y17O

(b) X17M

(c) X170

(d) X16O

Sol.Same as Classwork 1: Q.11

27

12. Find out the odd man out in the Sequence 8, 27 64 125 216

(a)

(b) 64

(c) 125

(d) 216

Sol.

Solution: (a) is correct

$$8 = 2^3$$

$$27 = 3^3$$

$$64 = 4$$

$$125 = 5^3$$

$$216 = 6^3$$

Bases are in A.P. and Powers on bases are equal. Only in 33 base and power are equal but in all, base and Power are different.

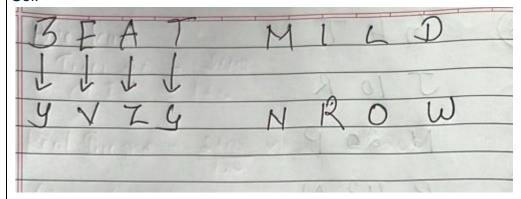
: (a) is correct.



- 13. In a certain Code Language BEAT is written as YVZG, then what will be Code for MILD?
  - (a) ONRW

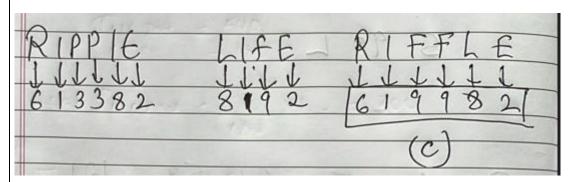
- (b) NOWR
- (c) ONWR (d) NROW

Sol.



- In a certain code RIPPLE is written as 613382, and LIFE is written as 8192. How will RIFFLE be written in that code?
  - (a) 618892
- (b) 689912
- (c) 619982
- (d) 629981

Sol.



15. Choose the missing term in the series,

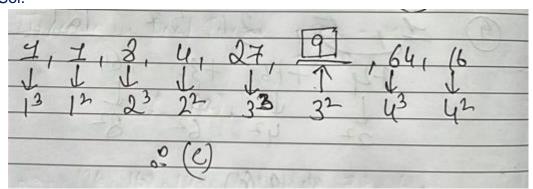
1, 1, 8, 4, 27, \_\_\_\_\_, 64, 16 (a) 27

(b) 11

(c) 9

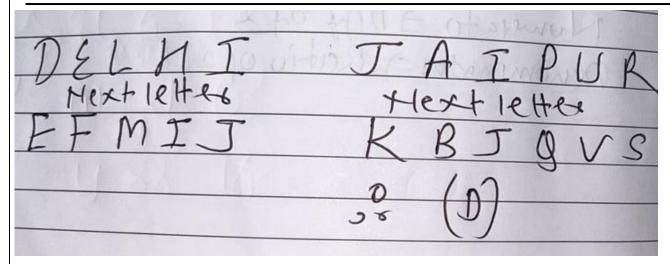
(d) 125

Sol.



- 16. If DELHI is coded as EFMII then JAIPUR is coded as \_
  - (a)
- **JQVSBK**
- (b) QVSKBJ
- (c) BJQVSK
- (d) KBJQVS





17. If FRAME is coded as 0618011305 then ARISE is coded as \_\_\_\_\_\_

(a)

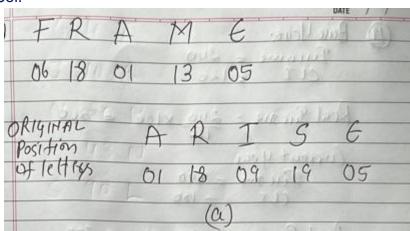
0118091905

(b) 0119091805

(c) 0118190905

(d) 0118091805

Sol.



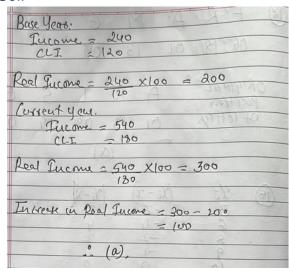
- 18. The mean deviation of the numbers 3, 10, 6,11,14,17, 9, 8,12 about the mean is (correct to one decimal place).
  - (a)
- 8.7
- (b) 4.2
- (c) 3.1
- (d) 9.8

3 -4 4 8 -4 2 9 -1 1 10 0 0 11 1 1 12 2 2 14 4 4 17 7 7 90 23	Xi (	(i - x)	17:-70	4
3 -2 2 9 -1 1 10 0 0 11 1 1 12 2 2 14 4 4 17 7 7 90 23	3	-7	7	
10 0 0 11 1 1 12 2 2 14 4 4 17 7 90 23	8	-4	9	
11 1 1 12 2 2 14 4 4 17 7 7 90 23		-i (a	( )	
14 4 4 17 7 7 90 23	11	0	1	100
90 23	12,95 0	2	41 201 -011 (25)	0
	17	4	9	
5(31) = 90, N = 9 30=10	90	+157740	23	
	5 (3li) = 90	N = 9	2=10	4
$M \cdot O(\bar{x}) = \frac{2}{2} \left( \frac{7(-\bar{x})}{2} - \frac{28}{2} - \frac{34}{2} \right) (c)$	M.O (=) -	5/11-20	1 - 13 - 31	(0)
10 (x) = 1 = 3 ()	10 (2) 2	h	9	()



- 19. The consumer price index goes up from 120 to 180 when salary goes up from 240 to 540, what is the increase in real terms?
  - (a)
- 80
- (b) 150
- (c) 360
- (d) 240

Sol.



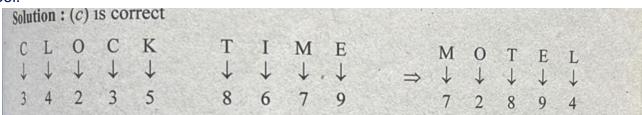
- 20. The wrong term in the series 225,196,169,144,121,100,77, 64, is,
  - (a)
- 121
- (b) 77
- (c) 100
- (d) 169

Sol.

125,1	96, 16	9,14	4,121	, (m	,77,	64	
allo	Hora	1.10	77 ( perfe	b)	1		
	, , ,	usc	bede	4 39	vales	1	
	01-	20	PEP	1. 0	2 10	1	

- 21. If CLOCK is coded as 34235 and TIME as 8679, then MOTEL is coded as
  - (a)
- 27894
- (b) 72964
- (c) 72894
- (d) 77684

Sol.

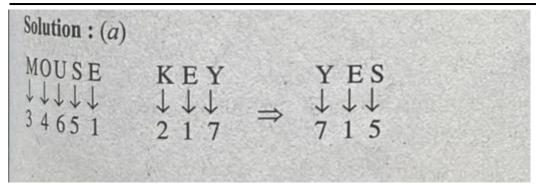


- 22. If MOUSE is coded as 34651 and KEY is coded as 217, then how will YES be coded?
  - (a)

715

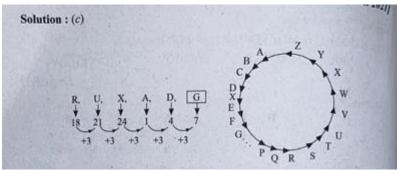
- (b) 517
- (c) 175
- (d) 571





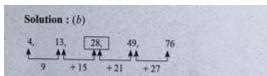
- What comes at the last place in R, U, X, A, D,\_\_\_
- Ε
- (b) F
- (c) G
- (d) Η

Sol.



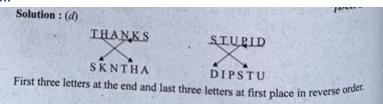
- 24. The missing term of the series 4, 13,\_\_\_\_\_, 49, 76 is
  - (a)
- (b) 28
- (c) 30
- (d) 32

Sol.



- 25. Find the odd one from the following:
  - (a)
- Zebra
- (b) Giraffe (c) Horse (d) Tiger
- Sol. (d) Tiger is the meat eating animal, But rest are grass eating animal.
- 26. If in a certain code "THANKS" is written as "SKNTHA", then how is "STUPID" written?
  - (a)
- **DIPUTS**
- (b) DISPUT
- (c) DIPUST
- (d) DIPSTU

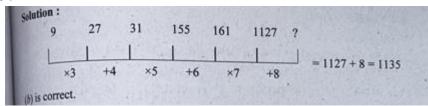
Sol.



27. 9,27,31,155,161,1127, ?- Find missing number?

- (a)
- 1316
- (b) 1135
- (c) 1288
- (d) 2254

Sol.

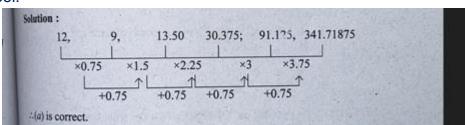


28. What is the missing number in the sequence given below?

12,9,13.50, 30.375, ?, 341.71875

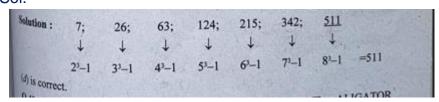
- (a)
- 91.125
- (b) 89.145
- (c) 90.475 (d) 92.485

Sol.



- 29. 7, 26, 63, 124, 215, 342 ?- Find the missing number.
  - (a)
- 391
- (b) 421
- (c) 481
- (d) 511

Sol.



- 30. In a certain code 'TELEPHONE' is written as ENOHPELET. Then ALIGATOR is written as
  - (a)
- ROTAGILA
- (b) ROTAGAIL (c) ROTAGILE
- (d) TOTAGILA

Solution : TELEPHONE→ENOHPELET Reversing its order ALIGATOR-ROTAGILA Reversing its order ... (a) is correct

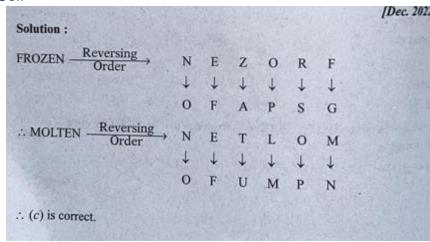
- 31. In a coded language, if 'EARTH' is written as 34215 and 'VENUS' is written as 73089. What is the code for "SATURN"?
  - (a)
- 941012
- (b) 941820
- (c) 914281
- (d) 912418



Е	A	R	T	H		V	E	N	U	S
1	1		1	1		1	1	1	1	1
3	4	2	1	5		7	3	0	8	9
S	A	T	U	R	N	(C	ору	ing C	odes	of letters)
1	1	1	1	1	1					
9	4	1	8	2	0					

- 32. If 'FROZEN' is decoded as 'OFAPSG'. Tick the right option that depicts 'MOLTEN' written in this way?
  - (a) OFPOMN
- (b) OFSMPN
- (c) OFUMPN
- (d) OFUNPN

Sol.



- 33. Find the odd man out: 34, 105, 424, 2123, 12756
  - (a) 12756
- (b) 2123
- (c) 424
- (d) 34

- Sol. Only 2123 is divisible by 11
  - (b) is correct
- 34. Find the missing in the following series?

- (a) 71
- (b) 61
- (c) 69
- (d) 79

Sol.

3. 5. 5. 19. 7. 41. 9. 
$$71$$
 11. 109

+14 +22 30 38

+8 +8 +8

ie.  $5+14=19$ 
 $19+22=41$ 
 $41+30=71$ 
 $71+38=109$ 

Ans.

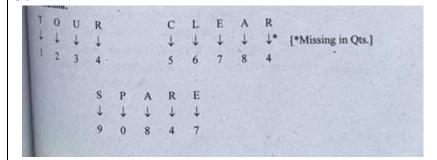
35. In certain code language, if TOUR is written as 1234, CLEAR is written 56784 and SPARE is written as 90847, find the code for CARE?

Sol.

(a) 1247 (b) 4847

(c) 5247

(d) 5847



(d) is correct

36. Find the next number in the given sequence?

11, 17, 39, 85, ?, 281, 447

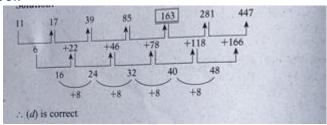
(a) 133

(b) 143

(c) 153

(d) 163

Sol.



- 37. If ROSE is coded as 6821, CHAIR is coded as 73456 and PREACH is coded as 961473, what will be the code for SEARCH?
  - (a)
- 246173
- (b) 214673
- (c) 216473
- (d) 214763

Solution:

R O S E C H A I R P R E A C H

↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓

6 8 2 I 7 3 4 5 6 9 6 1 4 7 3

S E A R C H

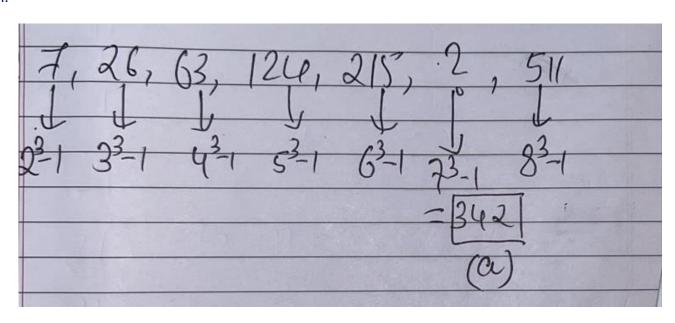
↓ ↓ ↓ ↓ ↓ ↓

2 1 4 6 7 3

∴ (b) is correct

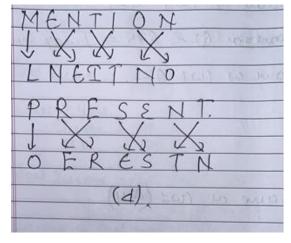
- 38. The number in place of question mark in: 7, 26, 63, 124, 215, ?, 511 is:
  - (a)
- 342
- (b) 343
- (c) 441
- (d) 421

Sol.

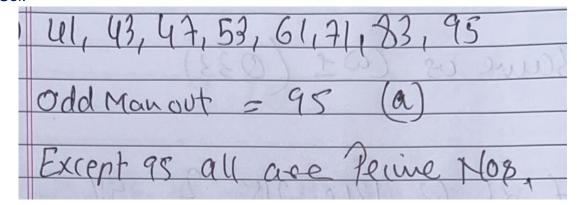


- 39. In a certain code, MENTION is written as LNEITNO. How is PRESENT written in that code?
  - (a)
- QFSFTUM
- (b) ONESERP
- (c) QRESTNO
- (d) OERESTN

Sol.



- 40. Out of following 41, 43, 47, 53, 61, 71, 83, 95 the odd man out shall be:
  - (a)
- 95
- (b) 81
- (c) 71
- (d) 53





41. Find the next number in the series: Q1F, S2E, U6D, W21C.....?

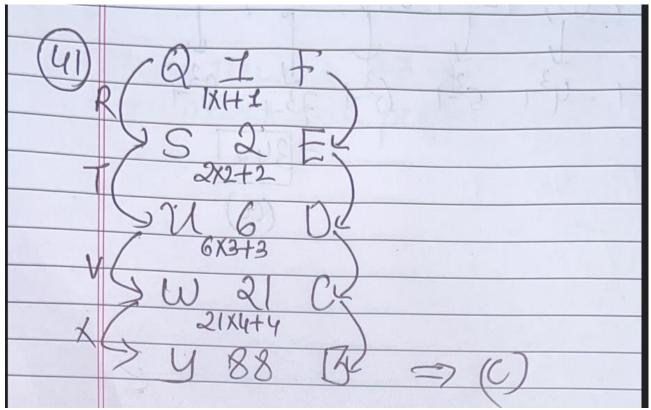
(a) Y66B

(b) Y44B

(c) Y88B

(d) Z66B

Sol.



42. 10,100,200, 310 ?

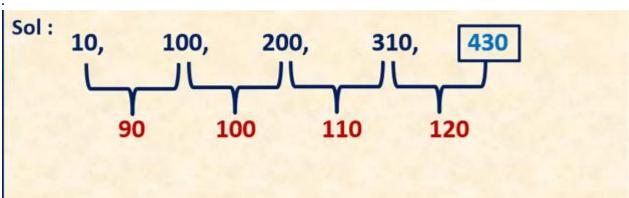
(a) 400

(b) 410

410 (c) 420

(d) 430

Sol.



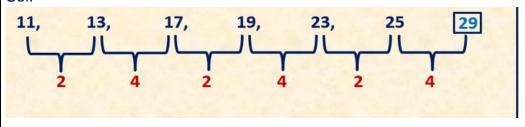
43. 11, 13, 17, 19, 23, 25, 27

(a) 33

(b) 27

(c) 29

(d) 49





44. 2, 5, 9, 14, ?, 27

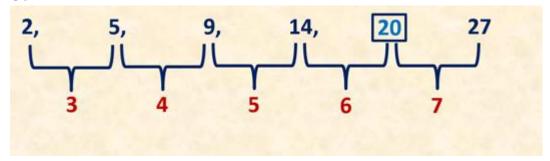
(a) 20

(b) 16 (c)

18

(d) 24

Sol.



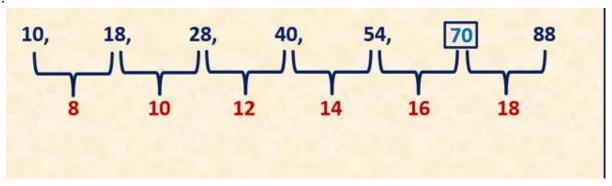
45. 10, 18, 28, 40, 54, ?, 88

(a) 70

(b) 86 (c) 87

(d) 98

Sol.



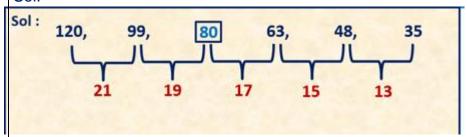
46. 120, 99, ?, 63, 48, 35

(a) 80

(b) 36 (c) 45

(d) 40

Sol.



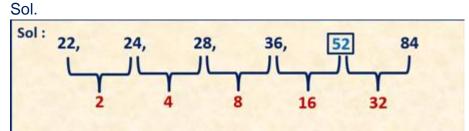
47. 22, 24, 28, 36, ?, 84

(a) 44

(b) 52

(c) 38

(d) 54



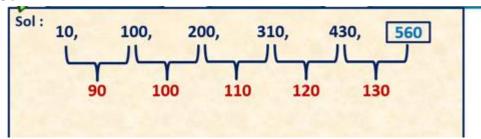
48. 10,100,200, 310, 430?

(a) 560

(b) 540 (c) 550 (d) 590



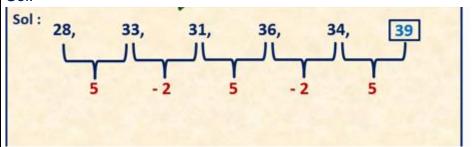
Sol.



49. 28, 33, 31, 36, 34?

- (a) 38
- (b) 39
- (c) 40
- (d) 42

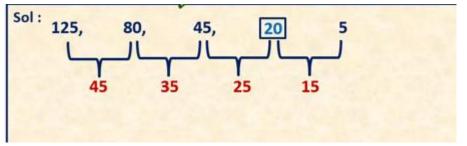
Sol.



50. 120, 80, 40, 45, ?, 5

- (a) 15
- (b) 20
- (c) 25
- (d)30

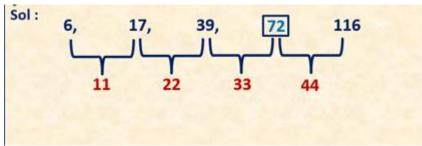
Sol.



51. 6, 17, 39, ?, 116

- (a) 72
- (b) 75 (c)
  - 85
- (d) 80

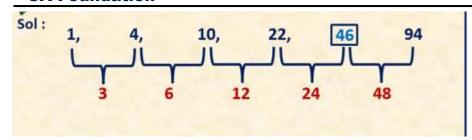
Sol.



52. 1, 4, 10, 22, ?, 94

- (a) 46 Sol.
- (b) 48 (c) 49 (d) 47





- 53. 4, 9, 25, 48, ?, 169, 289, 361
  - (a) 120
- (b) 121
- (c) 122
- (d) 164

Sol

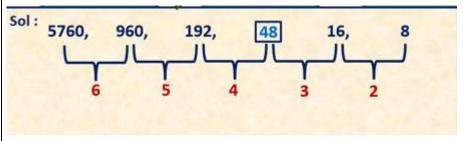
Sol:	9,	25,	49,	121	169,	289,	361
<b>↓</b>	1	1	1	1	1	1	1
22	32	5 <sup>2</sup>	72	112	132	172	19 <sup>2</sup>

- 54. 1, 1, 4, 8,9, ?, 16, 64
  - (a) 27 (b) 28 (c) 32
- (d) 40

Sol.

Sol: 1,	1,	4,	8,	9,	27	16,	64
1	1	↓ 2²	<b>↓</b>	1	<b>↓</b>	1	1
12	13	22	23	32	33	42	43

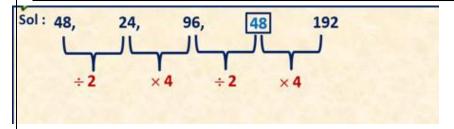
- 55. 5760, 960, 192, ? 16, 8
  - (a) 47
- 48 (b)
- (c) 52
- (d) 50



- 56. 48, 24, 96, ?192

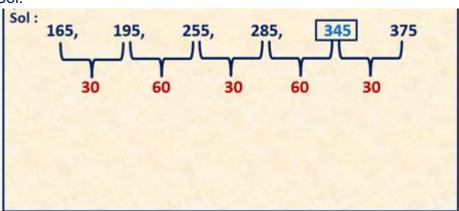
- (a) 48 (b) 47 (c) 44
- (d) 54





- 57. 165, 195, 255, 285, ?, 435
  - (a) 345 (b) 390 (c) 335 (d) 395

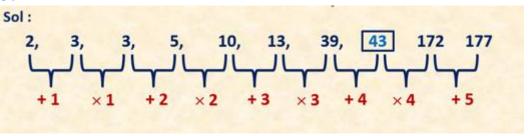
Sol.



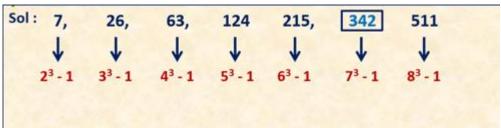
- 58. 2, 3, 3, 5, 10, 13, 39, ?, 172, 177

  - (a) 42 (b) 44
- (c) 43
- (d) 40

Sol.

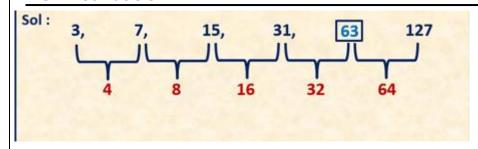


- 59. 7, 26, 63, 214, 215, ?, 511
  - (a) 342 (b) 343 (c) 441 (d)
- 421



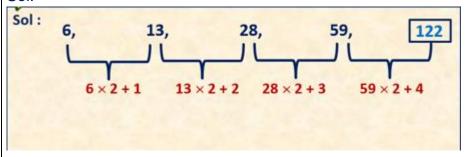
- 60. 3, 7, 15, 31, ? 127
  - (a) 62 (b) 63 (c) 64 (d) 65





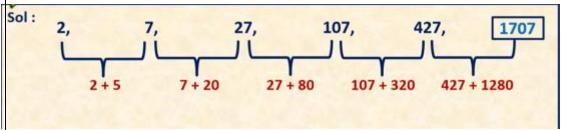
- 61. 6, 13, 28, 59, ?
  - (a) 122
- (b) 114
- (c) 113
- (d) 112

Sol.



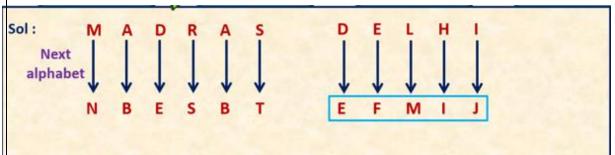
- 62. 2, 7, 27, 107, 427, ?
  - (a) 1707
- (b) 4027
- (c) 4207
- (d) 1207

Sol.



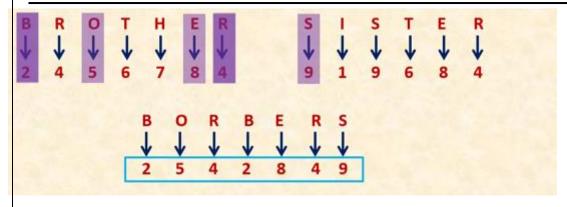
- 63. In a certain language, MADRAS is coded NBESBT, how DELHI is coded in that code?
  - (a) EMMJI
- (b) EFMIJ
- (c) EMFIJ
- (d) JIFEM

Sol.



- 64. If BROTHER is coded 2456784, SISTER coded as 919684, what is coded for BORBERS?
  - (a) 2542889
- (b) 2542898
- (c) 2454889
- (d) 2524889





65. If DELHI is coded 73541 and CALCUTTA as 82589662, How can CALICUT be coded?

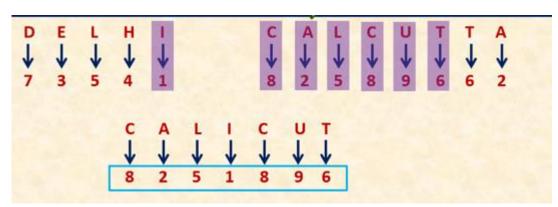
(a)

5279431 (b) 5978213 (c)

8251896

(d) 8543962

Sol.



If PALE is coded as 2134 and EARTH is coded as 41590, how is PEARL is code? 66.

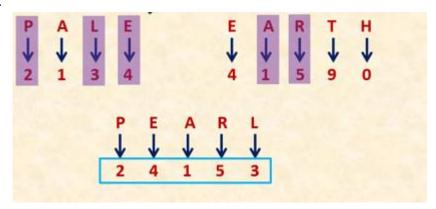
29530 (a)

24153 (b)

25430 (c)

(d) 254313

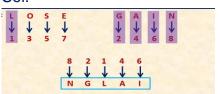
Sol.



If LOSE is coded as 1357 and GAIN is coded as 2468, what do figure 82146 stands for?

(a) NGLAI (b) NGLIA (c) GNLIA

(d) GNLIA

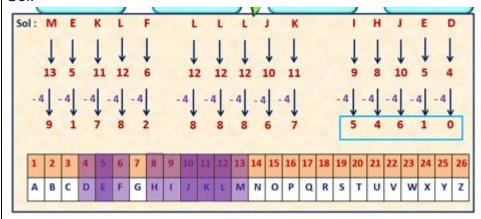




68. If MEKLF is coded as 91782 and LLLJK as 88867, how can IHJED is coded as?

- (a) 97854
- (b) 64512
- (c) 54310
- (d) 75632

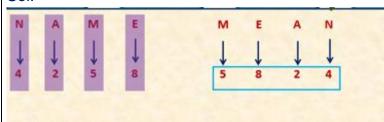
Sol.



69. If in a certain code language NAME is written as 4258 then what is coded as MEAN?

- (a) 2458
- (b) 5842
- (c) 8524
- (d) 5824

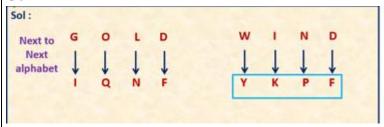
Sol.



70. If GOLD is written as IQNF, how WIND can be written as code?

- (a) VHMC
- (b) VHCM
- (c) XJOE
- (d) DNIW

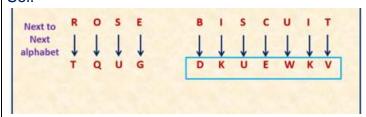
Sol.



71. If ROSE is written as TQUG, how BISCUIT can be written in that code?

- (a) DKUEWKV
- (b) CJTDVJU
- (c) DKVEWKV (d)
- d) DKUEWKY

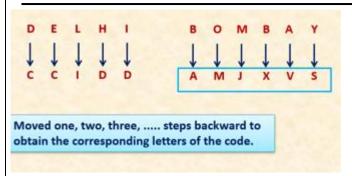
Sol.



72. If DELHI is coded as CCIDD, how would you encode BOMBAY?

- (a) AJMTVT
- (b) AMJXVS
- (c) MJXVSU
- (d) WXYZAX

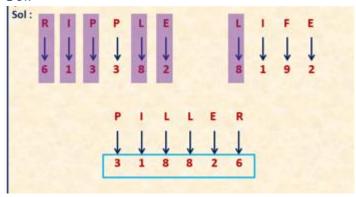




73. In a certain code, RIPPLE is written as 613382 and LIFE is written as 8192. How is PILLER written in that code?

- (a) 318826
- (b) 318286
- (c) 618826
- (d) 338816

Sol.



74. 184632

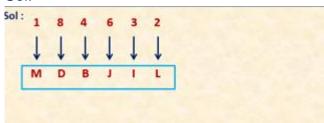
(a) MDJBSI

(b) MDJBIL

(c) MDJBWL (d)

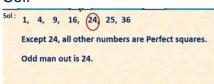
(d) MDBJIL

Sol.



- 75. In a certain code '256' means 'you are good', '637' means 'we are bad' and '358' means 'good and bad'. Which of the following represents 'and' in that code?
  - (a) 2
- (b) 5
- (c) 8
- (d) 3

- Sol. Same as Homework: Q.2.
- 76. 1, 4, 9, 16, 24, 25, 36
  - (a) 9
- (b) 24
- (c) 25
- (d) 36



77. 1, 4, 9, 16, 19, 36, 49

- (a) 19
- (b) 9
- (c) 49
- (d) 16

Sol.

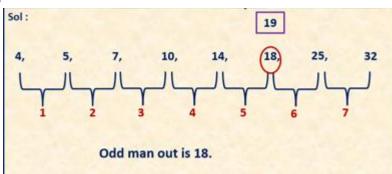
Except 19, all other numbers are Perfect squares.

Odd man out is 19.

78. 4, 5, 7, 10, 14, 18, 25, 32

- (a) 7
- (b) 14
- (c) 18
- (d) 33

Sol.



79 . 52, 51, 48, 43, 34, 27, 16

- (a) 27
- (b) 34
- (c) 43

(d) 48

