6/2/25

Lesson 1. Number Series

Topics:

* Missing Numbers
* odd man Out
* Wrong Number
*

Types:

* Arithmetic → Addition
  → Subtraction
* Geometric → Multiplication
  → Division
* Arithmetic - Geometric
* Exponential - Square, Series
* Special number Series - prime, Fibonacci
* Alternate
* Mixed

Missing Number:- Youtube: Crack with Jack.

1. difference (add/sub)
2. difference of difference
3. Squares & cubes
4. ·5 Model
5. Multiplication / division
6. Doubl operation.

(1) Missing number

I. difference:

It the digit 3, 5 or 4, 4 ...

∴ See the First value & Second value

Ex: 200 193 179 158 130 95

7 14 21 28 35

II. difference of difference

Ex: 2 5 10 19 36 69 ?

1st Diff: 3 5 9 17 33 65

2nd Diff: 2 4 8 16 32

Here the value will be nearest.

The starting no & end number between 100 we can think about differences double operation

1) Write first difference.

2) find first difference of difference

3) The second " will be double

4) Then add the ? of first difference

5) add previous value of ? and first difference

III. 0.5 Model:

Ex: 8 4 4 6 12 3

× 0.5 1 1.5 2 2.5

Trick to find

1) See first three values Sequence will be half & same

2) The Question will be in 0.5

IV Squares of ... (...)
... difference

...

V Multiplication
Suddenly increases

1 - 4 - 32 - 512 16384 1048576

4 8 16 32 64

16384 × 64
65536
98304
1048576

VI Double Operations

first 4 value will be nearest

2 3 8 31 154 923

×2 −1 ×3 −1 ×4 −1 ×5 −1 ×6 −1

ii) find the ~~missing~~ Wrong Number:

youtube: crack with Jack

① 200, 197, 186, 168, 144, 118, 82

3 11 18 24 29 33

8 7 6 5 4

A: 118

115
033
82

② 318 168 78 38 18 8 3

160 80 40 20 10

A: 168

③ 2, 3, 4, 12, 48, 240, 1440

1 1 3 4 5 6

A: 5

④ 59, 41, 68, 33, 77, 23

9 9 8 10 45

A: 23

⑤ 9, 5, 6, 10.5, 23, 90, 183

(0.5) Modul

+ and x

⑥ 5 6 16 56 244 1245

A: 90

A: 54

7. 6 7 16 41 90 (15)4 272

1^2 3^2 5^2 7^2 7^2

171 − 14

when the use double operation use the square or cube method

~~A: 98~~ A: 159

8. 59, 31, 17, 9, 6.5

57/2 +1.5, 31/2 +1.5, 17/2 +1.5, 9/2 +1.5

Here divide by 2

A: 9

57/2 = 29.5 + 1.5 = 31

9. 131, 67, 35, 19, (12) 7

65.5 +1.5, 33.5 +1.5, 17.5 +1.5, 9.5 +1.5

A: 12

10. 5, 6, 13, 40, (162), 806

×1+1, ×2+1, ×3+1, ×4+1

1×1 2+1 3+1 4+1

A: 162

Alphabet Series :-

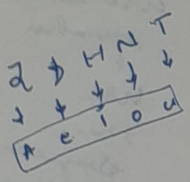
Rule 1:- Consonant

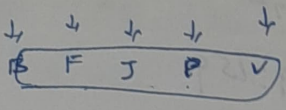
If consonant letters is came try to write previous of it. Ex: Y → X

Rule 2: Vowels

If vowels letters is came try to write next of it A → B.

Shortcuts :- Crack with Jack youtube





→ If the any of letters is present in word eliminate it.

Ex:- ~~CUP~~ HOT ~~PUT~~ DOG NID

CUP HOT PUT DOG NID

A: 3

(i) If all the letters in each of words are arranged alphabetically (within word) how many words will remain unchanged?

~~CUP~~ HOT PTU ~~DOG~~ DIN

A: HOT

a) 0
b) 1 d) 3
c) 2 e) None

(ii) If the position of 1st & 3rd letter of all words are interchanged, how many words will form meaningful English words?

DIN GOD

A: 2.

a) 0
b) 1
~~c) 2~~
d) 3
e) None

(iii) How many letters are there in English alphabet between Second letter of the fifth word and the third letter of Second word? (X)

CUP HOT PUT DOG NID

I → T
(ω)
letters

a) 7 b) 8
c) 9 d) 10

Ans: d) 10.

(iv) If the 1st letter of all words is changed to next letter of English alphabet series; then how many words will have more than one vowel?

~~CUP~~ HOT ~~PUT~~ DOG NID
0 (1) (2) (3)

Series :-

(1- 2 Question)

Element Series

[R D 1 5 E % k 3] £ 9 a 1 8 E # A 2 · B $ K H 6 W @ N 4 © T λ 7 F 4]

Leftend

Right end

Type 1:

Which of the following will be the 14th element from rightend?

A:- $

Type 2:

If all symbol are dropped from above series which element the 16th element from leftend?

A: K.

Type 3:

Which element is 6th to the right of 18th element from the right element?

6th ?

18

(X) Calculate from

M.

Trick:-

right rightend → I need to do (−)

left leftend

Ex: Right Rightend

18 − 6

12

Type: 4:

Which element is 9th to the right of 13th element from the left end?

Trick:

9+13 = 22

Left Rightend

Right leftend (#)

A: W

Type 5:

If the above given Series is reversed, then which element will be 7th to right of 5th from leftend?

Trick:-

(change) right → left

left → right

A: B

Type 6:

In the above given series, which element will be

→ start from here $

8th to left of 4th to left of $!

3 #

A: %

Type 7:- (X) (Tough Exams)
type words be asked

In the above given Series 1st, 2nd, 3rd elements and So on are interchanged with 20th, 19th, 18th then which elmt 4th to left of 14th from the left end?

Trick:

+1, -1, *1, -

1 + 20
2 + 19
3 + 18

21
21
21

I need to get Value

left - leftend
10 : ?
11

21

A: 9

Type: 8:-

which of the following is exactly midway b/w 6th element from right end and the 8th element from left end of arrangment?

Center

A: B

Type 9:- (X) V (X)

How many such letters are there in above Series each of which is immediately preceded by a Symbol and immediately followed by a No?

Previous

preceded - previous

followed by an NO - next value will be in no (after)

Symbol letter number

E ↑ K

↑ 2

@ N 4

A : 3

Type 10:

which should come in the place of question mark (?) in the following series based on arrangement?

D 5 ↑ . J 98 . 2 $ M ?

A: @ + F

Alphanumeric Series:

527 647 581 495 251 354

Type II: If 2 is added with 1st digit of each number, then all the digits are arranged in descending order with in number which would be smallest number in the given above arrangement?

727 847 781 645 451 554

727 874 871 965 541 854

A: 541

527 647 581 495 251 384

If 2 is subtracted from second digit of each number and 1 is added to the last digit of each number what should be the highest number in the given set of digits (all numbers) are arranged in ascending order with in numbers?

Type III

508 628 562 476 238 375

085 268 256 447 223 357

A: 467

527 647 581 495 251 384

Type III

Which of the following is the (second digit of second lowest number) if all digit of numbers are arranged in ascending order with in the numbers?

257 647 158 457 125 348

Type IV

527 647 581 495 251 384

If 3 is subtracted from every number which three number is exactly divided by 7?

524 644 578 412 248 384
r2 r2 r2 r2 r2

Apply rule divisibility of 7 in (Number system)

52-8 64-8 57-16 41-4 24-16 38-2

44 56 41 37 8 36

7

Type V: A: 64 ✗

↓ 714 927 175 593 348

If 3rd digit of 2nd highest no is divided by 1st of lowest no, then what will be final answer.

$$\frac{4}{1}$$

$$= 4.$$

Continuous pattern Series.

Type I: (Count all)

↓

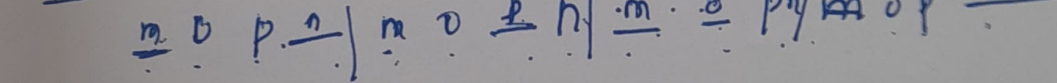
depth x letters

if 16 → 4×4

15 → 5×3

14 → 7×2 } → divide like this

Ex.



Count: 16

16

∧

4 4

a) m n p mon

b) mpn mop

c) mnompn

d) mnpomn

Type II :-

16
4 4

a) a b b a

b) b b a a ✓

c) b a a

d) a b a a