



Mahendra's



SSC CGL/CPO/CHSL

REASONING

NUMBER SERIES

PART-02

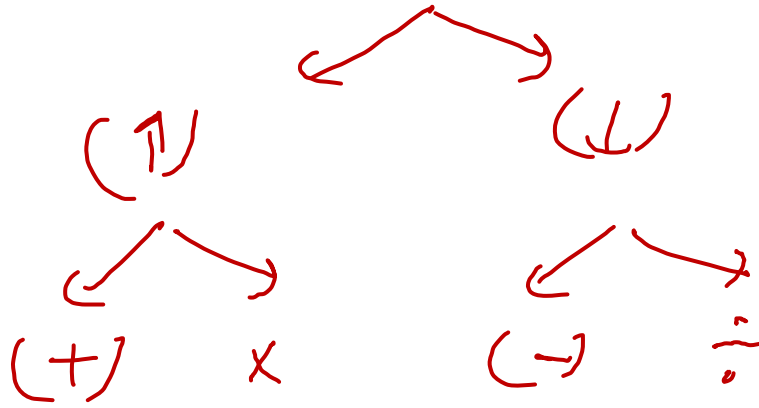


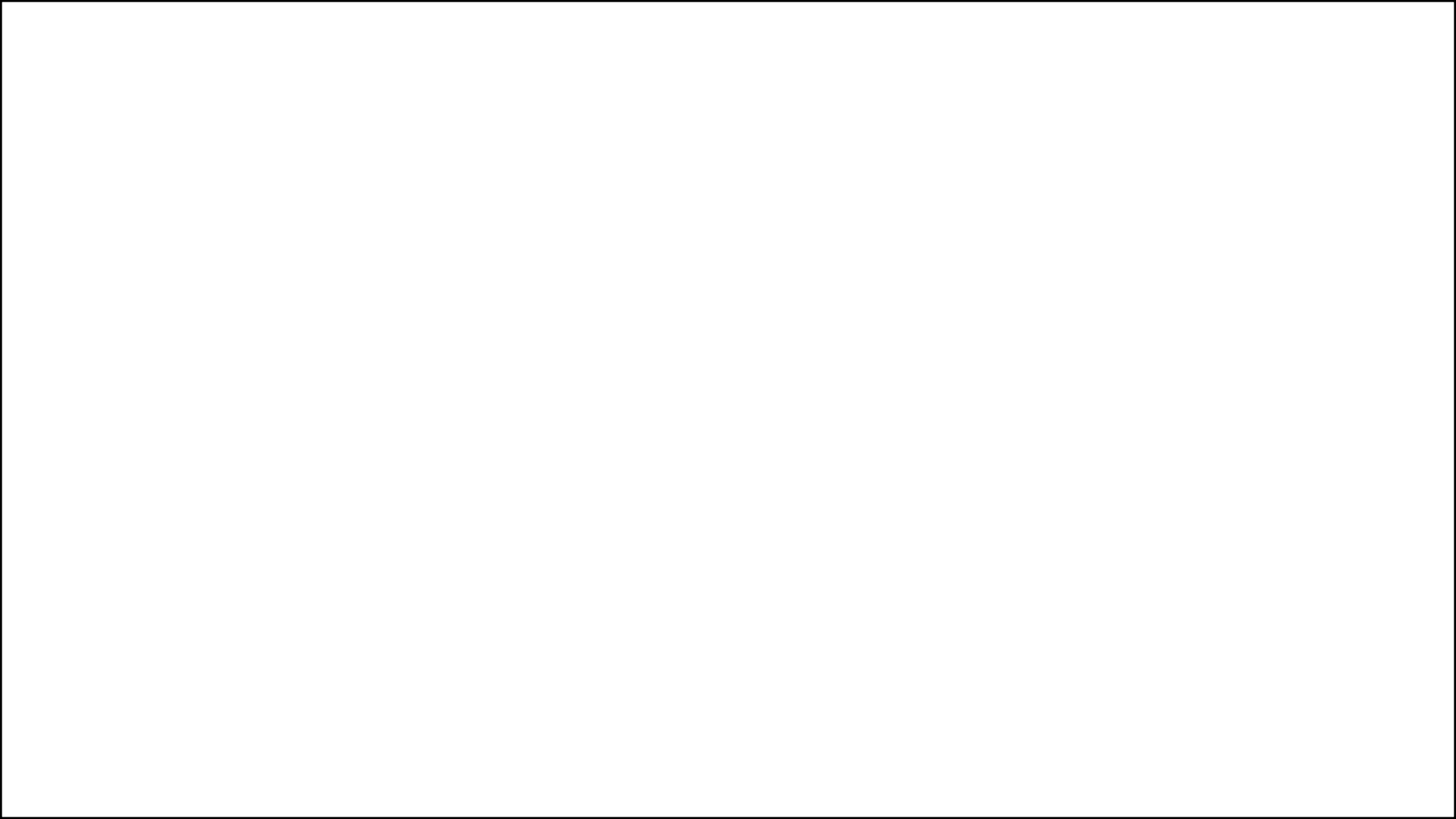
LIVE

07:30 PM



NUMBER SERIES





Q.14 FIND THE NEXT TERM

20, 10, 10, 15, 30, ?

$$\begin{array}{c} \textcircled{20} \quad 10 \\ | \\ \frac{1}{2} \end{array}$$

$$20 \times \textcircled{0.5} = 10$$

$$10 \times \textcircled{1} = 10$$

$$10 \times 1.5 = 15$$

$$15 \times 2 = 30$$

$$\textcircled{30} \times 2.5 = \textcircled{75}$$

- (a) 45
- (b) 90
- (c) 60
- (d) 75

Q.15 FIND THE NEXT TERM

132., 156 , ? 210 , 240 , 272



24 26 28 30 32

$$\begin{array}{r} 1 \\ 156 \\ 26 \\ \hline 182 \\ \hline \end{array}$$

(a)196

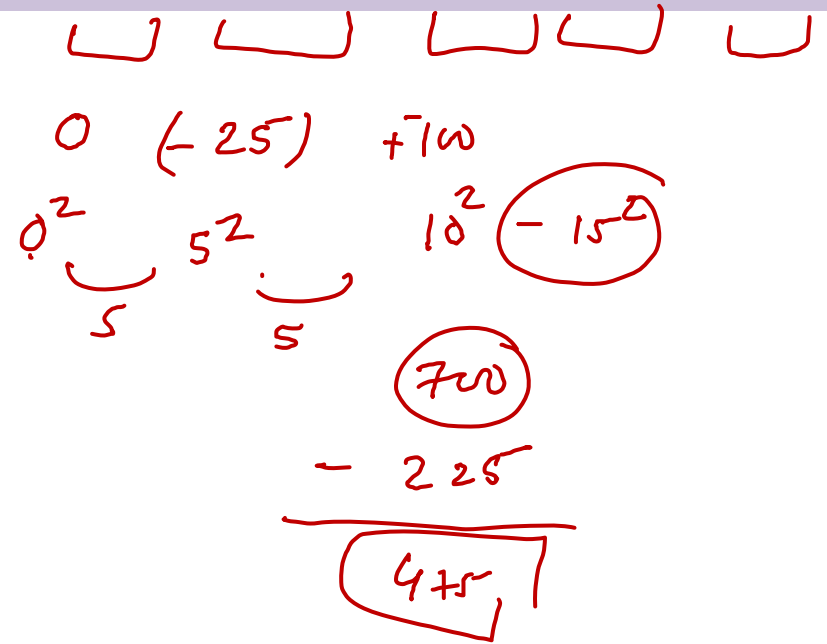
(b)182

(c)199

(d)204

Q.16 FIND THE NEXT TERM 700

625 , 625 , 600 , ? , 475 , 875



- (a)545
- (b)700
- (c)675
- (d)725

Q.17 FIND THE NEXT TERM

76, 43, 13, ?

4

$$7 \times 6 = 42 + 1 = 43$$

$$4 \times 3 = 12 + 1 = 13$$

$$1 \times 3 = 3 + 1 = 4$$

- (a) 5
- (b) 7
- (c) 4
- (d) 11

Q.18 FIND THE NEXT TERM

6, 7, 16, 51, ?

$$6 \times 1 + 1 = 7$$

$$7 \times 2 + 2 = 16$$

$$16 \times 3 + 3 = 51$$

$$51 \times 4 + 4$$

$$204 + 4 =$$

208

- (a) 258
- (b) 208
- (c) 234
- (d) 254

BSS SERIES PART -1

	<u>Base System</u>	<u>Series</u>	<u>PART-1</u>			
h^2	1^2	2^2	3^2	4^2	5^2	6^2
	1	4	9	16	25	36
h^2+1	2	5	10	17	26	37
h^2-1	0	3	8	15	24	35
-						
=						

$$\begin{aligned} & \overline{h^2 + 1} \\ & \underline{h^2 - 1} \end{aligned}$$

BSS SERIES PART -1

Q.19 FIND THE NEXT TERM

21, 25, 41, 77, ?

4 16 36 64
2² ~~4~~² 6² 8²

141

- (a) 141
- (b) 114
- (c) 124
- (d) 174

Q.20 FIND THE NEXT TERM

196 , 200 , 209 , 234 , 283 , ?

Handwritten analysis of the sequence:

196 + 4 = 200
200 + 9 = 209
209 + 25 = 234
234 + 49 = 283
283 + 121 = ?

The differences are: 4, 9, 25, 49, 121

These are squares of prime numbers: 2^2 , 3^2 , 5^2 , 7^2 , 11^2

The next prime is 13, so the next difference is $13^2 = 169$.

Therefore, the next term is $283 + 169 = 452$.

404

- (a) 403
- (b) 404
- (c) 374
- (d) 373

Q.21 FIND THE NEXT TERM

1, 2, 5, 26, ?, 485330

$$1^2 + 1 = 2$$

$$2^2 + 1 = 5$$

$$5^2 + 1 = 26$$

$$26^2 + 1 = \underline{677}$$

(a) 674

~~(b) 677~~

(c) 675

(d) 680

Q.22 FIND THE NEXT TERM

7, 9, 15, 27, ? (47)

2 6 12 20

1^2+1 2^2+2 3^2+3 4^2+4

(47)

- (a) 74
- (b) 47
- (c) 63
- (d) 59

Q.23 FIND THE NEXT TERM

26, 25, 26, 31, 42, 61, ? (90)

$$\begin{array}{cccccc} \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} \\ -1 & 1 & 5 & 11 & 19 & 29 \\ 1^2 - 2 & 2^2 - 3 & 3^2 - 4 & 4^2 - 5 & 5^2 - 6 & 6^2 - 7 \\ (-1) & 4 - 3 & 9 - 4 & 16 - 5 & 25 - 6 & \\ & 1 & 5 & 11 & & \end{array}$$

- (a) 80
- (b) 90
- (c) 100
- (d) 110

Q.24 FIND THE NEXT TERM

7, 28, 63, 126, 215, 344, ?

$$\begin{array}{cccccc} \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ 2^3-1 & 3^3+1 & 4^3-1 & 5^3+1 & 6^3-1 & 7^3+1 \end{array}$$

$$n^3-1 \quad n^3+1$$

$$8^3-1$$

$$512-1$$

(a) 555

(b) 511

(c) 513

(d) NOT

BSS SERIES PART -2

Based on cube

$$h^3 = 1^3 \quad 2^3 \quad 3^3 \quad 4^3 \quad 5^3 \quad 6^3 \quad 7^3 \quad \dots$$

$$h^3 = \boxed{1 \quad 8 \quad 27 \quad 64 \quad 125 \quad 216 \quad 343}$$

$$h^3 + 1 = 2 \quad 9 \quad 28 \quad 65 \quad 126 \quad 217 \quad 344$$

$$h^3 + 1$$

$$h^3 - 1$$

$$(h^3 + 1)$$

$$(h^3 - 1)$$

BSS SERIES PART -2

$$\underline{h^3+2} \quad h^3-2 \quad h^3\pm 2 \quad h^3\mp 2$$

$$h^3+h$$
$$h^3-h$$

$$h^3\pm h$$
$$\textcircled{h^3\mp h}$$

$$h^3+(h+1)$$
$$h^3+(h-1)$$
$$h^3\pm(h+1)$$
$$\underline{h^3\mp(h-1)}$$

Q.25 FIND THE NEXT TERM

16, 15, 20, ?, 102, 221

$$\begin{array}{cccccc} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} \\ & -1 & +5 & +23 & & 119 \\ \downarrow & & \downarrow & & & \hline \end{array}$$

$$1^3 - 2, \quad 2^3 - 3, \quad 3^3 - 4$$

$$1 - 2, \quad 8 - 3, \quad 27 - 4$$

$$\textcircled{-1}$$

$$\textcircled{5}$$

$$23$$

$$\underline{20 + 23}$$

$$\textcircled{43}$$

- (a) 44
- (b) 47
- (c) 43
- (d) 49

Q.26 FIND THE NEXT TERM

1000 , 992, 1019, 955 , 1080 , ?

$-8 + 27$ $-4^3 + 5^3$ 6^3

-2^3 $+3^3$ 216

- (a) 880
- (b) 862
- (c) 864
- (d) 890

Q.27 FIND THE NEXT TERM

18, 46, 94, 63, ? (52)

↓ ↓ ← ←

81 64 49 36 25
→ → → →
9² 8² 7² 6² 5²



- (a) 51
- (b) 52
- (c) 50
- (d) 43

Q.28 FIND THE NEXT TERM

90 , 92 , 172 , 492 , 1904 , ?

H.W.

- (a)9360
- (b)9340
- (c)9350
- (d)9365