

RBI Grade B 2024

Quant

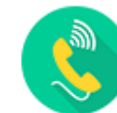
Lecture 1

Number Series

7:00 AM

2-3Q

P4Q



Basic Need to solve Number Series Questions

- Tables ✓✓ (25)
- Sum ✓✓
- Multiplication ✓✓ — Two × Two
Two + Three
- Square — (95)
- Square root ✓✓
- Cube — (10-15)
- Cube root ✓✓
- Basic percentage ✓✓
- Basic fractions ✓✓

Average Speed

95 minutes → 100

Square

$$1^2 = 1$$

$$2^2 = 4$$

$$3^2 = 9$$

$$4^2 = 16$$

$$5^2 = 25$$

$$6^2 = 36$$

$$7^2 = 49$$

$$8^2 = 64$$

$$9^2 = 81$$

$$10^2 = 100$$

$$11^2 = 121$$

$$12^2 = 144$$

$$13^2 = 169$$

$$14^2 = 196$$

$$15^2 = 225$$

$$16^2 = 256$$

$$17^2 = 289$$

$$18^2 = 324$$

$$19^2 = 361$$

$$20^2 = 400$$

$$21^2 = 441$$

$$22^2 = 484$$

$$23^2 = 529$$

$$24^2 = 576$$

$$25^2 = 625$$

Concept



Cube

$$1^3 = 1$$

$$2^3 = 8$$

$$3^3 = 27$$

$$4^3 = 64$$

$$5^3 = 125$$

$$6^3 = 216$$

$$7^3 = 343$$

$$8^3 = 512$$

$$9^3 = 729$$

$$10^3 = 1000$$

$$11^3 = 1331$$

$$12^3 = 1728 \checkmark$$

$$13^3 = 2197$$

$$14^3 = 2744$$

$$15^3 = 3375 \checkmark\checkmark$$



Number Series



↓
New Pattern

① Mining term

a b c d e (?)
~~~~~

↓  
Basic

② Wrong term

a b c d e f  
- - - - -

Logics

Basic Calculator



Two Con-terms  
diff- Startnt value

(1)

Sum

Logics  
=

$$\begin{array}{cccccc}
 2, & 3, & 5, & 8, & 12, & 17, & ? \\
 \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} \\
 +1 & +2 & +3 & +4 & +5 & +6 & \\
 \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \\
 \end{array}$$

(2)

Subtraction

$$\begin{array}{cccccc}
 109 & & 101 & & 94 & & 88 & & 83 & & ? \\
 \underbrace{\quad} & & \underbrace{\quad} & & \underbrace{\quad} & & \underbrace{\quad} & & \underbrace{\quad} & & \underbrace{\quad} \\
 -8 & & -7 & & -6 & & -5 & & -4 & & \\
 \end{array}$$

Two Con-terms  
diff- Disent value

(3)

Multiply

$$\begin{array}{cccccc}
 10 & 20 & 60 & 240 & 1200 & 7200 & 50400 & ? \\
 \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} \\
 \times 2 & \times 3 & \times 4 & \times 5 & \times 6 & \times 7 & \times 8 & \\
 \end{array}$$

(4)

Division

$$\begin{array}{cccccc}
 50400 \div 7 & 7200 \div 6 & 1200 & ? & 60 & 20 \\
 \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} \\
 \times 8 & \times 5 & \times 4 & \times 3 & & \\
 \end{array}$$



(5)  $\times \pm, \div \pm$  "

2      7      23      72      ?  
 $\underbrace{\hspace{1.5cm}}$     $\underbrace{\hspace{1.5cm}}$     $\underbrace{\hspace{1.5cm}}$     $\underbrace{\hspace{1.5cm}}$     $\underbrace{\hspace{1.5cm}}$   
 $\times 3 + 1$     $\times 3 + 2$     $\times 3 + 3$     $\times 3 + 4$     $\times 3 + 5$

Practice

(6) Square, Cube, Square  $\pm$ , Cube  $\pm$ , Square  $\times$ , Square  $\div$

2      6      15      31      56      ?  
 $\underbrace{\hspace{1.5cm}}$     $\underbrace{\hspace{1.5cm}}$     $\underbrace{\hspace{1.5cm}}$     $\underbrace{\hspace{1.5cm}}$     $\underbrace{\hspace{1.5cm}}$     $\underbrace{\hspace{1.5cm}}$   
 $+4$     $+9$     $+16$     $+25$     $+36$     $+49$   
 $2^2$     $3^2$     $4^2$     $5^2$     $6^2$     $7^2$   
 $\checkmark$     $\checkmark$     $\checkmark$     $\checkmark$     $\checkmark$     $\checkmark$



⑦ Step form

a b c d e f  
u u u u u  
u u u u

⑧ Illogical f

double / triple series



- ① Square, cube
- ②  $\times$ ,  $\div$ , Sum, Sub. — Mini
- ↪ ③ Step form
- ④ Fillm. / double / triple

Do not take Easy

↓  
Practice      Limited Series



**I.1-2: Read the following information carefully and answer the questions based on it.**

There are two number series given below I and II, having missing numbers A, B, C, and D. You are expected to solve them and answer the question accordingly.

I). 28, 42, 75, 135, (A), (B), 442, 630

$A = 211$   
 $B = 305$

(Even)<sup>2</sup>  
(Composite)<sup>2</sup>

4, 6, 8, 9, 10, 12, 14

0, 1, 5, 6 - Unit digit same

II). (C), (D), 132, 140, 152, 168, 188, 212

$C = 128$   
 $D = 128$

(128)<sup>4</sup>  
(433)<sup>4</sup>

R=0  
2, 3, 7, 8, 9  
4  
3 = 8 (1)

Q.1) Find the remainder when (A + D) divided by 7?

- [1] 5
- [2] 6
- [3] 3
- [4] 4
- [5] None of these

$211 + 128 = 339$   
 $7 \overline{) 339} \begin{array}{r} 48 \\ 28 \\ \hline 59 \\ 56 \\ \hline 3 \end{array}$

Q.2) (Z + 1) is the first term of sequence follows the same pattern as that of series I where Z = unit digit of (B + C)<sup>D</sup>, find the 5th element of the sequence?

- [1] 179
- [2] 185
- [3] 189
- [4] 113
- ~~[5] None of these~~

$Z = 1$   
 $Z + 1 = 2$   
2, 16, 49, 109, 185  
 $+14$     $+33$     $+60$     $+76$

Q.3) Two missing number series I and II, have missing numbers P, and Q respectively, given below. You are expected to solve them and answer the questions accordingly.

Series I. 50, 75, (P), 147, -22, 267

Series II. 24, 22, 42, (Q), 226, 615

Which of the following statement(s) is/are definitely true.

I). HCF of (P + 1) and Q is 3.

II). (Q-12) is a perfect square.

III). (P+Q + 1) is exactly divisible by 6.

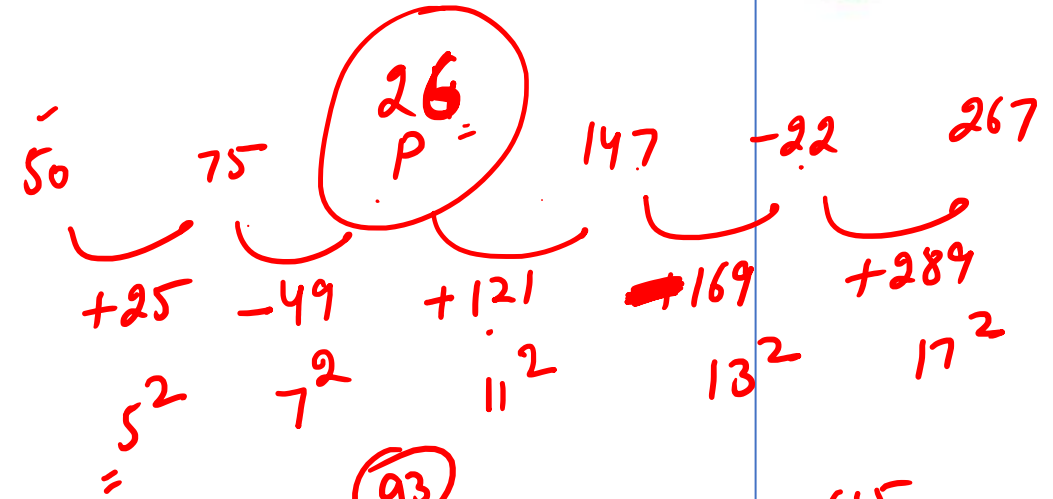
[1] II only

[2] I and II only

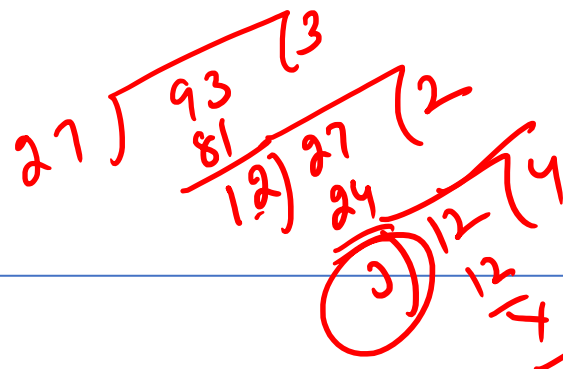
[3] II and III only

[4] I and III only

[5] I, II, and III



$$26 + 93 + 1 = \frac{120}{6}$$



Q.4) Two series (I) and (II) are given below with missing term P in series (I) and missing term Q in series (II).

(I). 8, 13, 22, 39, P, 137

(II). 139, 90, Q, 29, 13, 4

Find that which of the following is/are true?

- ~~A.~~ Ratio of P to Q is 4: 3.  $72:54 = 4:3$
- ~~B.~~  $\sqrt{P-8} = \sqrt{Q-5}-1$   $8 = 6X$
- ~~C.~~ Sum of P and Q is a multiple of 24.

[1] Only A and B

[2] All are true

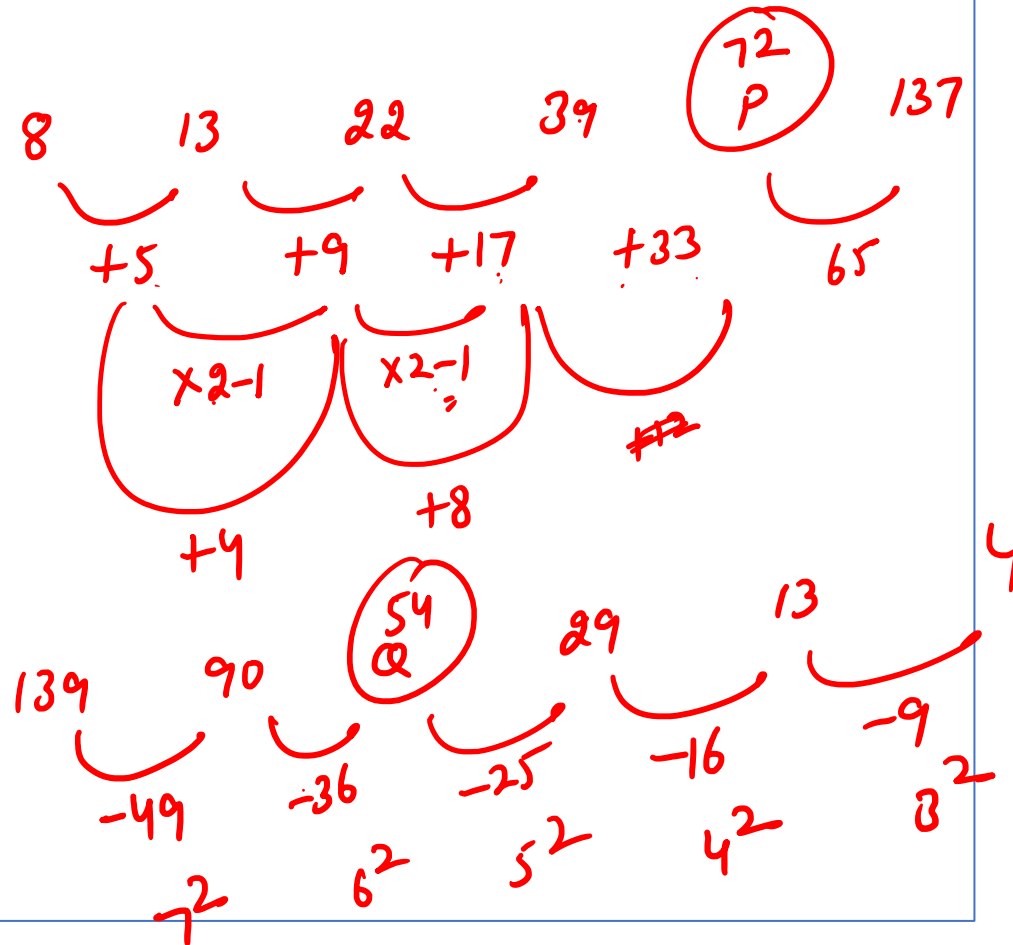
[3] None is true

~~[4] Only A~~

[5] Only C

$$\begin{array}{r}
 72 + 54 \\
 \hline
 126 \\
 24 \overline{) 120} \\
 \underline{120} \\
 6
 \end{array}$$

$$\begin{array}{l}
 P = 72 \\
 Q = 54
 \end{array}$$

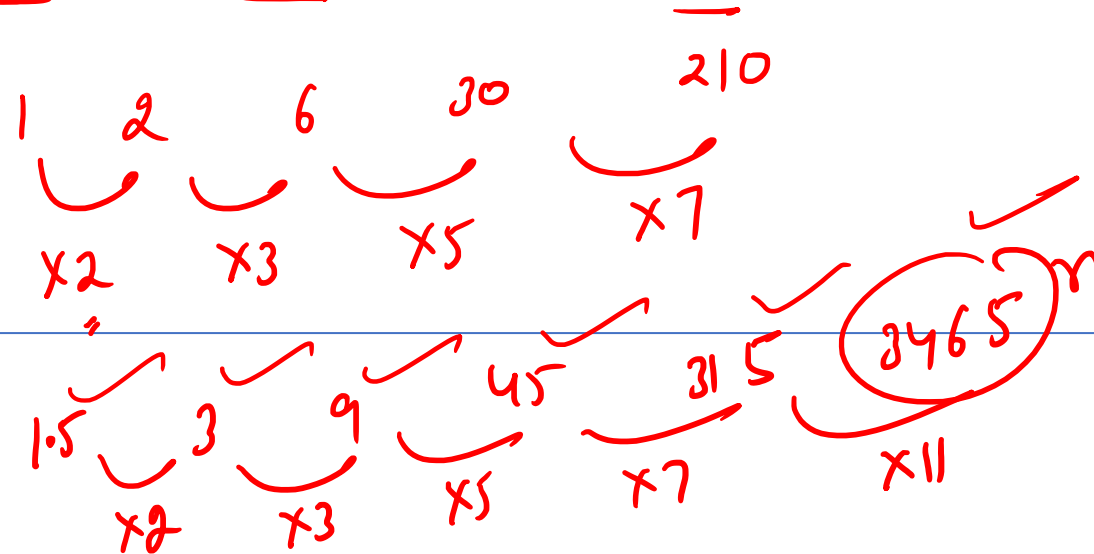


The below are two series. Series I follows a certain pattern, follow the same pattern in Series II and answer the question given below :

Q.5) Series I : 1, 2, 6, 30, 210

Series II : 1.5 ..... If 3465 is the  $n^{\text{th}}$  term find the value of  $n$ .

- [1] 5
- [2] 7
- ~~[3] 6~~
- [4] 9
- [5] 11



Prime No.



Q.6) The given expressions form a series. Find the odd one out.

$x$ ,  $(2x - 12)$ ,  $1.5x$ ,  $3x$ ,  $(5x + 20)$ ,  $22.5x$  such that  $x = \sqrt{144}$

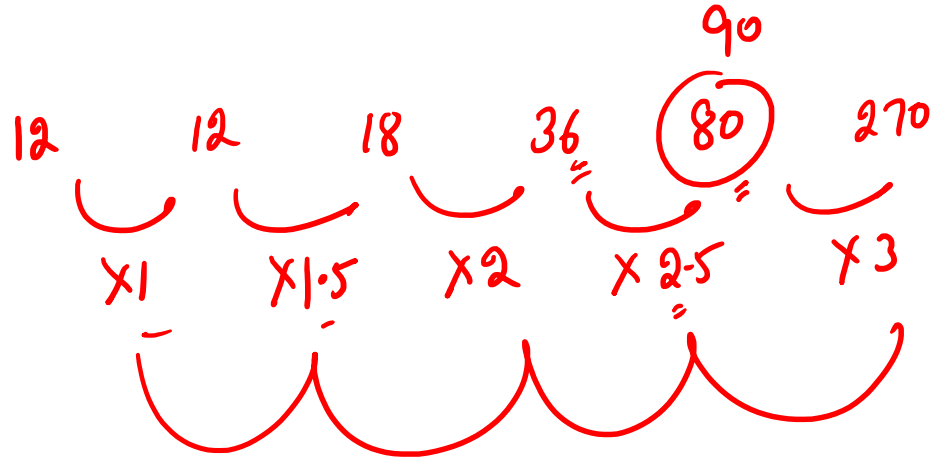
[1]  $22.5x$

[2]  $3x$

[3]  $x$

~~[4]  $5x + 20$~~

[5] None of these



$x = 12$

4

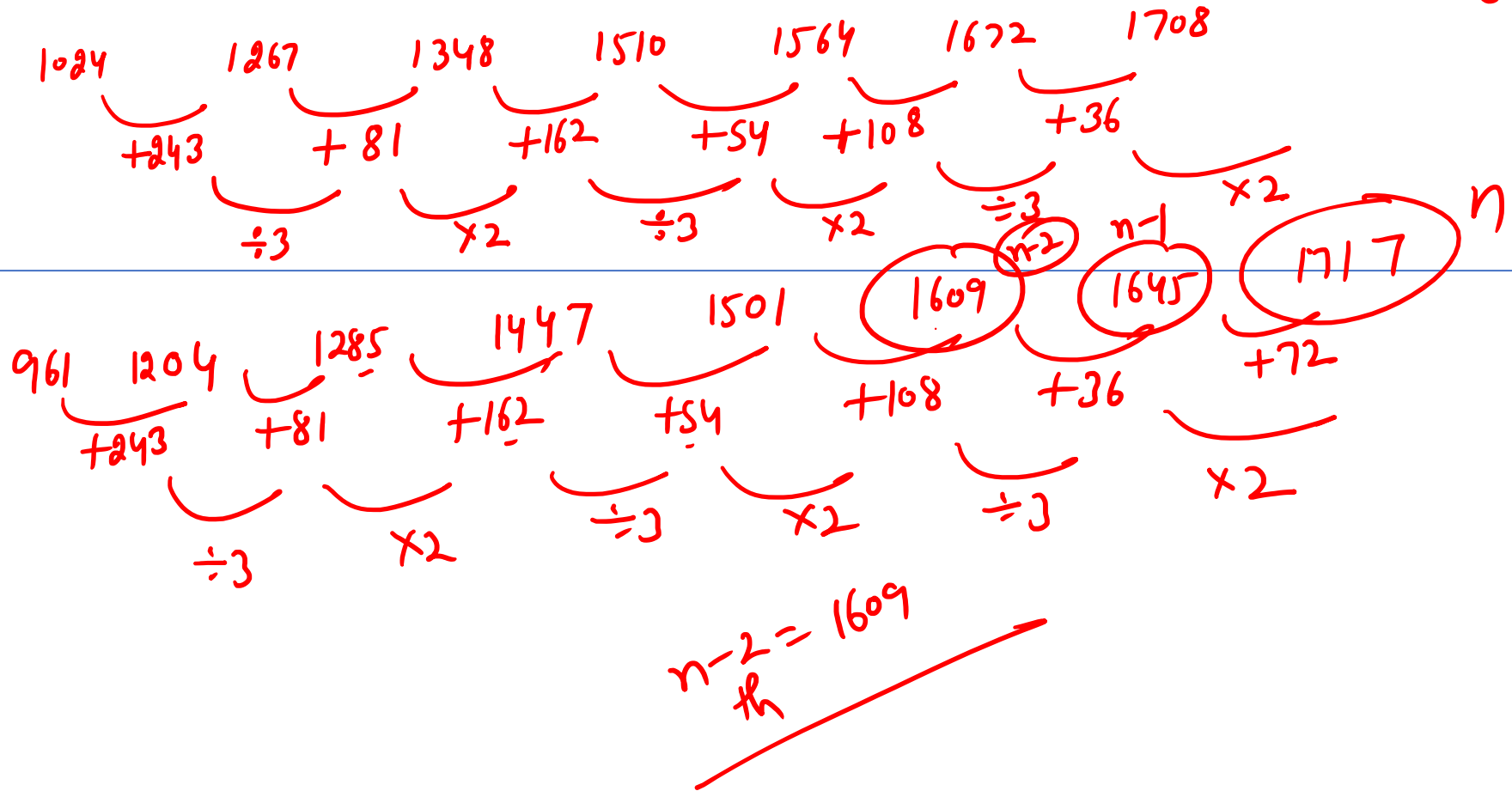


The questions below are based on the given Series-I. The series-I satisfy a certain pattern, follow the same pattern in Series-II and answer the questions given below.

Q.7) I. 1024, 1267, 1348, 1510, 1564, 1672, 1708

II. 961 ... 1717. If 1717 is  $n$ th term, then what value should come in the place of  $(n-2)$ th term?

- [1] 1876
- [2] 1709
- ~~[3] 1609~~
- [4] 1568
- [5] 1436



Q.8) (I) 3 , 35 , A , 1160 , 4660 , 13998

(II) 80 , 42 , B , 13.5 , 8.75 , 6.375 , 5.1875

Solve both the above series and find which of the following is correct.

(A)  $10B - A = 4$

(B)  $16^2 = A + B + 5$

(C)  $10B < A$

[1] Only A

[2] Only B

[3] Only C

[4] Both A and B

[5] None of these

Home Work

Q.9) A number series given below as I. A second number series as II having first term same as the wrong term of the series I. Find 3rd term of series II?

Series I. 3, 7, 22, 95, 479, 2879

- A. 541
- B. 137
- C. 561
- D. 551
- E. None of these

Handwritten analysis of Series I:

$$\begin{array}{cccccc}
 3 & 7 & 22 & 95 & 479 & 2879 \\
 \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} \\
 \times 2 + 1 & \times 3 + 2 & \times 4 + 3 & \times 5 + 4 & \times 6 + 5 & 5
 \end{array}$$

Handwritten corrections below the terms:

$$\begin{array}{cccccc}
 & & 23 & & & \\
 & & \textcircled{22} & & & \\
 & & & & 475 & 2874
 \end{array}$$

Handwritten analysis of Series II:

$$\begin{array}{cc}
 22 & 45 \\
 \underbrace{\quad} & \underbrace{\quad} \\
 \times 2 + 1 & \times 3 + 2 \\
 & \textcircled{137}
 \end{array}$$





A series is given below where the first term is marked as (a), the second as (b), third as (c) and so on.

Series – 100, 95, 105, 88, 114, ?

(a) (b) (c) (d) (e) (f)

Q.12) What is the value of '(f)'?

[a] 67

[b] 87

[c] 77

[d] 74

[e] 81

|     |    |     |    |     |        |
|-----|----|-----|----|-----|--------|
| a   | b  | c   | d  | e   | f = 77 |
| 100 | 95 | 105 | 88 | 114 | ?      |
| -5  |    | +10 |    | -37 |        |
| 5   |    | 7   |    | 11  |        |

RBI Grade B  
2022



A series is given below where the first term is marked as (a), the second as (b), third as (c) and so on.

Series – 100, 95, 105, 88, 114, ?

(a) (b) (c) (d) (e) (f)

Q.13) If a new series is made following the same pattern of the above series, where (a) is the third term, (b) is the fourth term, (c) is the fifth term and so on. Then find the second term of such a series.

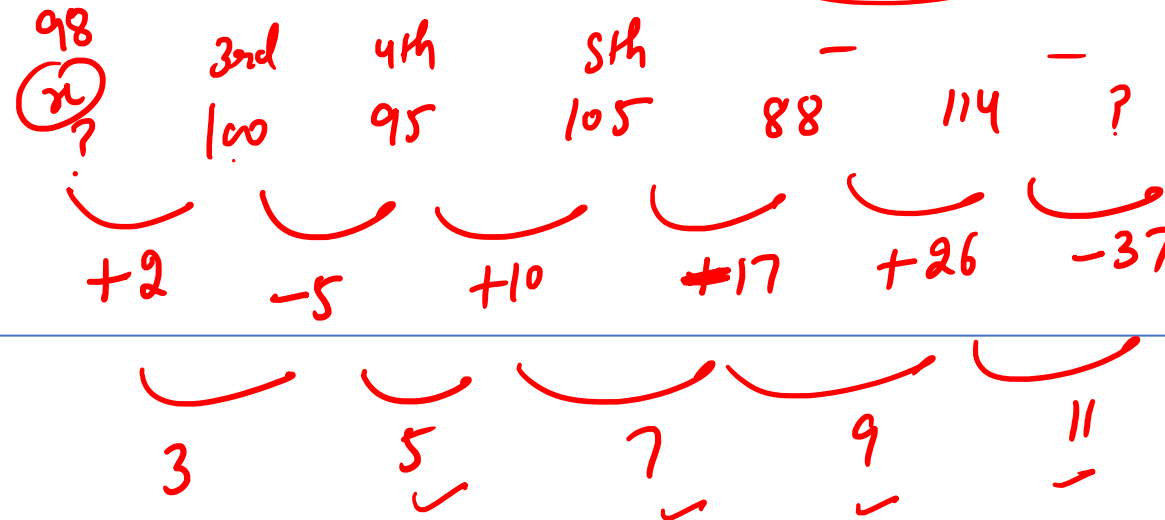
[a] 99

[b] 98

[c] 102

[d] 111

[e] None of the above



A series is given below where the first term is marked as (a), the second as (b), third as (c) and so on.

Series – 100, 95, 105, 88, 114, ?

(a) (b) (c) (d) (e) (f)

Q.14) What minimum number should be added to the 'f+20' to get to the nearest perfect square.

[a] 4

[b] 1

[c] 7

~~[d] 3~~

[e] 6

$$f = 77$$

$$77 + 20 = 97 + 3 = \underline{\underline{100}}$$



Q.15) The series given below contains a missing number 'P'. Find the value of 'P' and determine which among the given three statement(s) is/are true.

74, 290, 241, 753, 672, 'P', 1551

I: The nearest perfect square number to 'P' is 1600 ~~X~~

II: 'P' is divisible by 11 ✓

III: (P + 28) is a multiple of 50. ✓

- [1] Only I
- [2] Only II
- [3] Only I and II
- ~~[4] Only II and III~~
- [5] Only III

$$1672 + 28 = \frac{1700}{50}$$

Handwritten analysis of the number series:

74      290      241      753      672      P      1551

$+216$        $-49$        $+512$        $-81$        $+1000$        $-121$   
 $6^3$        $7^2$        $8^3$        $9^2$        $+10^3$        $-11^2$

$1672$   
 $1681$

$1600$  ~~X~~

$1672$   
 $8 \times 8 = 011, 221$

$1601$   
 $8$   
 $1608$

Q.16) Given below are two number series I and II where the missing numbers in series I and II are 'P' and 'Q', respectively. Find the value of 'P' and 'Q' and find which among the given options gives the correct value of (P - Q)

I: 5000, 4000, 3000, 2100, P, 819

II: 4, 6, 15, 56, Q, 1644

[1] 1120

~~[2] 1090~~

[3] 980

[4] 1240

[5] 1050

$$P - Q = \begin{array}{r} 1365 \\ - 275 \\ \hline 1090 \end{array}$$

$$\begin{array}{cccccc}
 5000 & 4000 & 3000 & 2100 & \textcircled{1365} & 819 \\
 \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} \\
 \times 0.8 & \times 0.75 & \times 0.7 & \times 0.65 & \times 0.6 & \\
 \\
 4 & 6 & 15 & 56 & \textcircled{275} & 1644 \\
 \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} \\
 \times 2-2 & \times 3-3 & \times 4-4 & \times 5-5 & \times 6-6 & 
 \end{array}$$

==



Q.17) Given below are two number series I and II where the missing numbers in series 'I' and 'II' are 'P' and 'Q', respectively. Find the value of 'P' and 'Q' and find which among the given options gives the L.C.M of 'P' and 'Q'.

I: 77, 106, 48, P, 19, 164

II: 141, 98, Q, 63, 71, 96

[1] 1080

[2] 1200

[3] 724

[4] 960

[5] 1440

Home Work



Thank You

26th — 27th — Practice  
28th

For More Info Contact us:



+91 8146207241



hello@edutap.co.in



www.edutap.co.in