

\* संख्या श्रृंखला (Number Series) \*

संख्या श्रृंखला में संख्या जोड़, घटाव, गुणा, भाग, अंकगणितीय ज्यामितीय, घन, वर्ग इत्यादि श्रृंखला से घट या बढ़ सकती है।

(1.) 2, 4, 6, 8, 10

(2.) 2, 3, 5, 7, ?

$\Rightarrow$  2, 3, 5, 7, 11 — (अभाज्य संख्या की श्रृंखला)

(3.) 1, 3, 5, 7, 9

(4.) 4, 9, 16, 25, 36, 49

$\Rightarrow 2^2 = 4, 3^2 = 9, 4^2 = 16, 5^2 = 25, 6^2 = 36, 7^2 = 49$

(5.) 2, 3, 10, 15, 26, ?

$\Rightarrow 1^2 + 1 = 2, 2^2 - 1 = 3, 3^2 + 1 = 10, 4^2 - 1 = 15, 5^2 + 1 = 26$

$6^2 - 1 = \boxed{35}$

(6.) 64, 125, 216, 343, 512, ?

$\Rightarrow 4^3 = 64, 5^3 = 125, 6^3 = 216, 7^3 = 343, 8^3 = 512, 9^3 = \boxed{729}$

(7.) 62, 127, 214, 345, ?

$\Rightarrow 4^3 - 2 = 62, 5^3 + 2 = 127, 6^3 - 2 = 214, 7^3 + 2 = 345, 8^3 - 2 = \boxed{510}$

(8.) 2, 3, 8, 63, ?

(a) 3971

(b) 3958

(c) 3968 (✓) (d) 3981

$\Rightarrow$

|              |              |              |              |                                                                  |
|--------------|--------------|--------------|--------------|------------------------------------------------------------------|
| $2$          | $3$          | $8$          | $63$         | <span style="border: 1px solid black; padding: 2px;">3968</span> |
| $\downarrow$ | $\downarrow$ | $\downarrow$ | $\downarrow$ | $\downarrow$                                                     |
| $2^2 - 1$    | $3^2 - 1$    | $8^2 - 1$    | $63^2 - 1$   |                                                                  |

(9.) 6, 11, 21, 36, 56, ?

|              |              |              |              |              |                                                                |
|--------------|--------------|--------------|--------------|--------------|----------------------------------------------------------------|
| $6$          | $11$         | $21$         | $36$         | $56$         | <span style="border: 1px solid black; padding: 2px;">81</span> |
| $\downarrow$ | $\downarrow$ | $\downarrow$ | $\downarrow$ | $\downarrow$ | $\downarrow$                                                   |
| $+5$         | $+10$        | $+15$        | $+20$        | $+25$        |                                                                |

(10)  $0.50, 0.55, 0.65, 0.80, \underline{1.00}$

$\Rightarrow$   $0.50 \xrightarrow{+0.05} 0.55 \xrightarrow{+0.10} 0.65 \xrightarrow{+0.15} 0.80 \xrightarrow{+0.20} \boxed{1.00}$

(11)  $0.5, 1.5, 4.5, 13.5, \underline{?}$

$\Rightarrow$   $0.5 \xrightarrow{\times 3} 1.5 \xrightarrow{\times 3} 4.5 \xrightarrow{\times 3} 13.5 \xrightarrow{\times 3} \boxed{40.5}$

(12)  $\frac{1}{2}, \frac{3}{4}, \frac{5}{8}, \frac{7}{16}, \underline{?}$

$\Rightarrow$   $\frac{1}{2} \xrightarrow{\times 2} \frac{3}{4} \xrightarrow{\times 2} \frac{5}{8} \xrightarrow{\times 2} \frac{7}{16} \xrightarrow{\times 2} \boxed{\frac{9}{32}}$

(13)  $9, 11, \underline{?}, 31, 51, 82$

$\Rightarrow 82 - 51 = 31$

$51 - 31 = \boxed{20}$

$31 - 20 = 11$

$20 - 11 = 9$

(14)  $1, 3, 7, 15, 31, 63, \underline{?}$

$\Rightarrow$   $1 \xrightarrow{\times 2+1} 3 \xrightarrow{\times 2+1} 7 \xrightarrow{\times 2+1} 15 \xrightarrow{\times 2+1} 31 \xrightarrow{\times 2+1} 63 \xrightarrow{\times 2+1} \boxed{127}$

(15)  $1, 3, 4, 8, 15, 27, \underline{?}$

$\Rightarrow 1 + 3 + 4 = 8$

$3 + 4 + 8 = 15$

$4 + 8 + 15 = 27$

$8 + 15 + 27 = \boxed{50}$



(16) 1, 2, 5, 12, 27, 58, ?

$$\Rightarrow \begin{array}{ccccccccc} 1 & 2 & 5 & 12 & 27 & 58 & & \boxed{121} \\ \underbrace{\hspace{1cm}}_{\times 2+0} & \underbrace{\hspace{1cm}}_{\times 2+1} & \underbrace{\hspace{1cm}}_{\times 2+2} & \underbrace{\hspace{1cm}}_{\times 2+3} & \underbrace{\hspace{1cm}}_{\times 2+4} & \underbrace{\hspace{1cm}}_{\times 2+5} & & \end{array}$$

(17) 0, 6, 24, 60, 120, 210, ?

$$\Rightarrow 1^3 - 1 = 0, 2^3 - 2 = 6, 3^3 - 3 = 24, 4^3 - 4 = 60, 5^3 - 5 = 120, 6^3 - 6 = 210, 7^3 - 7 = \boxed{336}$$

(18) 840, 168, 42, 14, 7, ?

$$\Rightarrow \begin{array}{ccccccccc} 840 & 168 & 42 & 14 & 7 & & \boxed{7} \\ \underbrace{\hspace{1cm}}_{\times 5} & \underbrace{\hspace{1cm}}_{\times 4} & \underbrace{\hspace{1cm}}_{\times 3} & \underbrace{\hspace{1cm}}_{\times 2} & \underbrace{\hspace{1cm}}_{\times 1} & & \end{array}$$

(19) 240, ?, 120, 40, 10, 2

$$\Rightarrow \begin{array}{ccccccccc} 240 & & \boxed{240} & 120 & 40 & 10 & 2 \\ \underbrace{\hspace{1cm}}_{\times 1} & \underbrace{\hspace{1cm}}_{\times 2} & \underbrace{\hspace{1cm}}_{\times 3} & \underbrace{\hspace{1cm}}_{\times 4} & \underbrace{\hspace{1cm}}_{\times 5} & & \end{array}$$

(20) 10, 100, 200, 310, ?

$$\Rightarrow \begin{array}{ccccccccc} 10 & 100 & 200 & 310 & & \boxed{430} \\ \underbrace{\hspace{1cm}}_{+90} & \underbrace{\hspace{1cm}}_{+100} & \underbrace{\hspace{1cm}}_{+110} & \underbrace{\hspace{1cm}}_{+120} & & \end{array}$$

(21) 4, 10, —, 82, 244, 730

$$\Rightarrow \begin{array}{ccccccccc} 4 & 10 & & \boxed{28} & 82 & 244 & 730 \\ \underbrace{\hspace{1cm}}_{\times 3-2} & \underbrace{\hspace{1cm}}_{\times 3-2} & \underbrace{\hspace{1cm}}_{\times 3-2} & \underbrace{\hspace{1cm}}_{\times 3-2} & \underbrace{\hspace{1cm}}_{\times 3-2} & \underbrace{\hspace{1cm}}_{\times 3-2} & \end{array}$$

(22) 23, 35, 57, 711, ?

$$\Rightarrow \boxed{2} \boxed{3} \quad \boxed{3} \boxed{5} \quad \boxed{5} \boxed{7} \quad \boxed{7} \boxed{11} \quad \boxed{11} \boxed{13} \quad \left[ \text{अभाज्य संख्या की एक श्रृंखला} \right]$$

OR

$$\boxed{2}, \boxed{3}, \boxed{5}, \boxed{7}, \boxed{11}, \boxed{13}, \boxed{17}, \boxed{19}$$

(23.) 4, 2, 2, 3, 6, ?

$$\Rightarrow \begin{array}{ccccccccc} 4 & & 2 & & 2 & & 3 & & 6 & & \boxed{15} \\ \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} \\ \times \frac{1}{2} & & \times 1 & & \times 1\frac{1}{2} & & \times 2 & & \times 2\frac{1}{2} & & \end{array}$$

(24.) 6, 9, 18, 45,  $\boxed{135}$

$$\Rightarrow \begin{array}{ccccccccc} 6 & & 9 & & 18 & & 45 & & 135 \\ \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} \\ \times 1\frac{1}{2} & & \times 2 & & \times 2\frac{1}{2} & & \times 3 & & \end{array}$$

(25.) 7, 7, 10.5, 21, ?

$$\Rightarrow \begin{array}{ccccccccc} 7 & & 7 & & 10.5 & & 21 & & \boxed{52.5} \\ \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} \\ \times 1 & & \times 1\frac{1}{2} & & \times 2 & & \times 2\frac{1}{2} & & \end{array}$$

(\*) नीचे दिये गये अंक श्रृंखला में कोई एक संख्या गलत है।  
उस गलत संख्या को बताओ और उसके स्थान पर सही अंक लिखो।

(26.) 8, 16, 24, 40, 62, 104, 168.

$$\Rightarrow 8 + 16 = 24, 24 + 16 = 40 \Rightarrow 40 + 24 = \boxed{64} \Rightarrow 64 + 40 = 104$$

अतः संख्या 62 गलत है और उसके स्थान पर 64 को लिखा जायेगा।

(27.) 8, 13, 21, 32, 47, 63, 83.

$$\Rightarrow \begin{array}{ccccccccc} 8 & & 13 & & 21 & & 32 & & \boxed{47} & & 63 & & 83 \\ \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} \\ +5 & & +8 & & +11 & & +14 & & +17 & & +20 & & \\ \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} \\ +3 & & +3 & & +3 & & +3 & & +3 & & +3 & & \end{array}$$

गलत संख्या = 47  
उसके स्थान पर  
सही संख्या = 46

(28.) 7, 28, 63, 124, 215, 342, 511.

$$\Rightarrow 2^3 - 1 = 8, \boxed{3^3 - 1 = 26}, 4^3 - 1 = 63, 5^3 - 1 = 124, 6^3 - 1 = 215$$

$$7^3 - 1 = 342, 8^3 - 1 = 511$$

गलत संख्या = 28, सही संख्या = 26



(29.) 15, 16, 22, 29, 45, 70.

$$\Rightarrow \begin{array}{cccccc} 15 & 16 & \boxed{22} & 29 & 45 & 70 \\ \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} \\ +1^2=1 & +2^2=4 & +3^2=9 & +4^2=16 & +5^2=25 & \end{array}$$

गलत संख्या = 22      सही संख्या = 20

(30.) 2, 5, 10, 50, 500, 5000.

$$\Rightarrow 2 \times 5 = 10$$

$$5 \times 10 = 50$$

$$10 \times 50 = 500$$

$$50 \times 500 = \boxed{25000}$$

गलत संख्या = 5000

सही संख्या = 25000

(31.) 5, 10, 40, 80, 320, 550, 2560.

$$\Rightarrow \begin{array}{ccccccccc} 5 & 10 & 40 & 80 & 320 & \boxed{550} & 2560 \\ \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} \\ \times 2 & \times 4 & \times 2 & \times 4 & \times 2 & \times 4 & \end{array}$$

गलत संख्या = 550, सही संख्या = 640

(32.) 8, 14, 26, 48, 98, 194, 386.

$$\Rightarrow \begin{array}{ccccccccc} 8 & 14 & 26 & \boxed{48} & 98 & 194 & 386 \\ \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} & \underbrace{\quad} \\ \times 2-2 & \times 2-2 & \times 2-2 & \times 2-2 & \times 2-2 & \times 2-2 & \end{array}$$

गलत संख्या = 48, सही संख्या = 50

(33.) 8, 27, 125, 343, 1331

$$\Rightarrow 2^3 = 8, 3^3 = 27, 5^3 = 125, 7^3 = 343, 11^3 = 1331$$

कोई गूटि नहीं है। (अभाज्य संख्या की एक श्रेणी है।)

(34.) 3, 8, 15, 24, 34, 48, 63

$$\Rightarrow 2^2-1=3, 3^2-1=8, 4^2-1=15, 5^2-1=24, 6^2-1=\boxed{35}$$

$$7^2-1=48, 8^2-1=63.$$

गलत संख्या = 34, सही संख्या = 35

(35.) B, E, ?, Q, Z.

$\Rightarrow \overset{2}{B}, \overset{5}{E}, \boxed{\overset{10}{J}}, \overset{17}{Q}, \overset{26}{Z}$

$1^2+1=2, 2^2+1=5, 3^2+1=10, 4^2+1=17, 5^2+1=26$

श्रेणी में रिक्त स्थान पर **J** आएगा।

(36.) BDF, CFI, DHL, ?

$\Rightarrow$

BDF, CFI, DHL, **EJO**

श्रेणी में रिक्त स्थान पर **EJO** आएगा।

(37.) YEB, WFD, UHG, SKI, ?

$\Rightarrow \overset{25}{Y} \overset{5}{E} \overset{2}{B} \quad \overset{23}{W} \overset{6}{F} \overset{4}{D} \quad \overset{21}{U} \overset{8}{H} \overset{7}{G} \quad \overset{19}{S} \overset{11}{K} \overset{3}{I} \quad \boxed{\overset{17}{Q} \overset{15}{O} \overset{12}{L}}$

Y  $\xrightarrow{-2}$  W  $\xrightarrow{-2}$  U  $\xrightarrow{-2}$  S  $\xrightarrow{-2}$  Q

E  $\xrightarrow{+1}$  F  $\xrightarrow{+2}$  H  $\xrightarrow{+3}$  K  $\xrightarrow{+4}$  O

B  $\xrightarrow{+2}$  D  $\xrightarrow{+3}$  G  $\xrightarrow{+2}$  I  $\xrightarrow{+3}$  L

रिक्त स्थान पर **QOL**

आएगा।

(38.) CXG, JTH, QPJ, XLM, ?

$\Rightarrow \overset{3}{C} \xrightarrow{+7} \overset{10}{J} \xrightarrow{+7} \overset{17}{Q} \xrightarrow{+7} \overset{24}{X} \xrightarrow{+7} \overset{31}{E} \quad \overset{24}{X} \xrightarrow{-4} \overset{20}{T} \xrightarrow{-4} \overset{16}{P} \xrightarrow{-4} \overset{12}{L} \xrightarrow{-4} \overset{8}{H}$

$\overset{7}{G} \xrightarrow{+1} \overset{8}{H} \xrightarrow{+2} \overset{10}{J} \xrightarrow{+3} \overset{13}{M} \xrightarrow{+4} \overset{17}{Q}$

रिक्त स्थान पर **EHQ** आएगा।

(39.) ZIA, X2D, V6G, T21J, R88M, P445P, **N2676S**

$\Rightarrow \overset{26}{Z} \xrightarrow{-2} \overset{24}{X} \xrightarrow{-2} \overset{22}{V} \xrightarrow{-2} \overset{20}{T} \xrightarrow{-2} \overset{18}{R} \xrightarrow{-2} \overset{16}{P} \xrightarrow{-2} \overset{14}{N}$

$1 \times 1 + 1 = 2, 2 \times 2 + 2 = 6, 3 \times 3 + 3 = 21, 4 \times 4 + 4 = 88, 5 \times 5 + 5 = 445, 6 \times 6 + 6 = 2676$

$A \xrightarrow{+3} D \xrightarrow{+3} G \xrightarrow{+3} J \xrightarrow{+3} M \xrightarrow{+3} P \xrightarrow{+3} S$

अतः रिक्त स्थान पर **N2676S** आएगा। (UPPCS-2015)



\* नीचे दी गई श्रृंखलाओं में से प्रश्न चिह्न (?) के स्थान पर क्या आएगा ?

(40.) 16, 61, 25, 52, 36, 63, 49, ? (SSC LDC-2015)

(A) 36 (B) 94 (C) 72 (D) 46

$\Rightarrow$   $\begin{array}{cc} 16 & 61 \\ \hline & \end{array}$  इसी प्रकार,  $\begin{array}{cc} 49 & 94 \\ \hline & \end{array}$   
विपरीत क्रम

(41.)  $7\frac{1}{7}$ ,  $8\frac{2}{6}$ ,  $9\frac{5}{5}$ ,  $12\frac{2}{4}$ ,  $16\frac{2}{3}$ , ? (CGL-2015)

(A)  $\frac{50}{2}$  (B)  $15\frac{2}{4}$  (C)  $16\frac{4}{4}$  (D) 35

$\Rightarrow 7\frac{1}{7} = \frac{50}{7}$ ,  $8\frac{2}{6} = \frac{50}{6}$ ,  $9\frac{5}{5} = \frac{50}{5}$ ,  $12\frac{2}{4} = \frac{50}{4}$ ,  $16\frac{2}{3} = \frac{50}{3}$

$\therefore \frac{50}{7}, \frac{50}{6}, \frac{50}{5}, \frac{50}{4}, \frac{50}{3}, \boxed{\frac{50}{2}}$

(42.) 0, 6, 24, 60, 120, 210, ? (CPO-2015)

(A) 240 (B) 504 (C) 336 (D) 290

$\Rightarrow$   $\begin{array}{ccccccccc} 0 & 6 & 24 & 60 & 120 & 210 & 336 \\ \hline & 6 & 18 & 36 & 60 & 90 & 126 \\ \hline & & 12 & 18 & 24 & 30 & 36 \\ \hline & & & 6 & 6 & 6 & 6 \end{array}$

(43.) 2, 15, 41, 80, ? (CPO-2015)

(A) 120 (B) 121 (C) 132 (D) 111

$\Rightarrow$   $\begin{array}{ccccccc} 2 & 15 & 41 & 80 & 132 \\ \hline & +13 & +26 & +39 & +52 \end{array}$

(44.) 3, 15, 4, 16, 5, 17, 6, ?, 7 (LDC-2014)

(A) 12 (B) 13 (C) 15 (D) 18

$\Rightarrow$   $\begin{array}{ccccccccccc} & & +1 & & +1 & & +1 & & \\ 3 & 15 & 4 & 16 & 5 & 17 & 6 & 18 & 7 \end{array}$

(45) 156, 506, ?, 1806 (CGL-2014)

(A) 1056 (L) (B) 856 (C) 1456 (D) 1506

⇒ 156, 506, 1056, 1806  
 $350, 550, 750$   
 $200, 200$

(46) CBA, ABC, ABCD, DCBA, ABCDE, ? (MTS-2012)

(A) EDCBA (L) (B) DBAC

(C) CABD (D) BACD

⇒ CBA, ABC, ABCD, DCBA, ABCDE, EDCBA  
 विपरीत क्रम, विपरीत क्रम, विपरीत क्रम

\* दी गई श्रृंखला में कोई एक संख्या गलत है। उस गलत संख्या को बताएँ ?

(47) 7, 8, 18, 57, 228, 1165, 6996 (CGL-2014)

(A) 8 (B) 18 (C) 41 (D) 228 (L)

⇒ 7, 8, 18, 57, 228, 1165, 6996  
 $\times 1+1, \times 2+2, \times 3+3, \times 4+4, \times 5+5, \times 6+6$

228 गलत संख्या है इसके स्थान पर 232 सही संख्या है।

(48) 701, 348, 173, 85, 41, 19, 8 (FCI-2011)

(A) 173 (B) 41 (C) 19 (D) 348 (L)

⇒ श्रृंखला में दापीं ओर से इस प्रकार लिखें-

$8 \times 2 + 3 = 19, 19 \times 2 + 3 = 41, 41 \times 2 + 3 = 85, 85 \times 2 + 3 = 173$

$173 \times 2 + 3 = 349, 349 \times 2 + 3 = 701$

गलत संख्या = 348, सही संख्या = 349

(49) 225, 289, 338, 374, 397, 415, 424 (CGL-2016)

(A) 415 (B) 338 (C) 374 (D) 397 (L)

⇒ 225, 289, 338, 374, 399, 415, 424  
 $+64, +49, +36, +25, +16, +9$   
 $(0)^2, (7)^2, (6)^2, (5)^2, (4)^2, (3)^2$

गलत संख्या = 397, सही संख्या = 399