

## Number series

**Directions: What will come in place of question mark (?) in the following series?**

**1. 1024 520 268 142 ? 47.5**

A. 84                      B. 82                      C. 79                      D. 88                      E. None of these

**2. 32 16.5 17.5 27.75 57.5 ?**

A. 136.25                      B. 142.25                      C. 146.25                      D. 156.25                      E. None of these

**3. 6 16 34 62 102 ?**

A. 156                      B. 132                      C. 136                      D. 142                      E. None of these

**4. 100 101 102 101 96 ? 66**

A. 97                      B. 85                      C. 108                      D. 64                      E. None of these

**5. 3 10 24 50 ? 170**

A. 80                      B. 82                      C. 120                      D. 121                      E. None of these

**6. 32 35 64 71 104 ? 152**

A. 110                      B. 114                      C. 115                      D. 125                      E. None of these

**7. 4 20 29 38 47 56 ?**

A. 65                      B. 64                      C. 66                      D. 62                      E. None of these

**8. 9 24 69 204 609 ?**

A. 1818                      B. 1828                      C. 1827                      D. 1824                      E. None of these

**9. 582 751 555 724 528 ?**

A. 699                      B. 702                      C. 697                      D. 695                      E. None of these

**10. 14 33 71 128 204 ?**

A. 289                      B. 298                      C. 225                      D. 256                      E. None of these

**11. 8 12 18 27 40.5 60.75 ?**

A. 91.125

B. 88.125

C. 96.125

D. 101.125

E. None of these

**12. 13 15 21 37 77 173 ?**

A. 349

B. 359

C. 357

D. 397

E. None of these

**13. 8648 8834 9022 9212 9404 9598 ?**

A. 9754

B. 9774

C. 9668

D. 9794

E. None of these

**14. 23 21 45 131 529 ? 15841**

A. 1058

B. 1587

C. 2116

D. 2639

E. None of these

**15. 64 88 152 162 174 ?**

A. 200

B. 302

C. 202

D. 292

E. None of these

**16. 43 47 56 81 130 ?**

A. 215

B. 251

C. 289

D. 231

E. None of these

**17. 204 205 203 209 185 305 ?**

A. 428

B. 484

C. 416

D. 512

E. None of these

**18. 1022 1009 983 944 892 ?**

A. 798

B. 812

C. 815

D. 827

E. None of these

**19. 1025 1024 1019 1005 975 ?**

A. 920

B. 925

C. 905

D. 912

E. None of these

**20. 196 201 208.5 218.5 231 ?**

A. 245

B. 248

C. 250

D. 246

E. None of these

**21. 489, 510, 516, 528, 543, 555, ?**

A. 569

B. 570

C. 573

D. 568

E. None of these

**22. 81, 91, 109, 146, 221, 351, ?**

A. 578

B. 582

C. 591

D. 576

E. None of these

**23. 540, 538, 534, 526, 510, ?, 414**

A. 470

B. 478

C. 474

D. 472

E. None of these

**24. 32, 24, 20, 18, 17, ?**

A. 16.5

B. 8.5

C. 12.5

D. 18.5

E. None of these

**25. 1, 3, 9, 39, 249, 2559, ?**

A. 28561

B. 30458

C. 32589

D. 35289

E. None of these

**26. 704, 88, 22, 8.25, ?**

A. 4.125

B. 6.50

C. 6.25

D. 5.25

E. None of these

**27. 2, 10, 30, 68, 130, ?**

A. 221

B. 230

C. 222

D. 225

E. None of these

**28. 1, 4, 15, 28, 57, 88, ?**

A. 133

B. 143

C. 157

D. 147

E. None of these

**29. 122, 171, 228, 293, 366, ?**

A. 450

B. 455

C. 447

D. 465

E. None of these

**30. 13, 15, 19, 27, 43, ?**

A. 74

B. 72

C. 73

D. 75

E. None of these

**31. 25 33 54 99 179 ?**

A. 243

B. 240

C. 285

D. 305

E. None of these

**32. 384 377 356 321 ? 209**

A. 328

B. 384

C. 284

D. 272

E. None of these

**33. 5 9 16 32 75 ?**

A. 199

B. 200

C. 204

D. 212

E. None of these

**34. 3 16 45 96 175 ?**

A. 290

B. 285

C. 288

D. 310

E. None of these

|                                                        |          |          |          |                  |
|--------------------------------------------------------|----------|----------|----------|------------------|
| <b>35.    3    11    29    67    145    ?</b>          |          |          |          |                  |
| A. 198                                                 | B. 303   | C. 185   | D. 309   | E. None of these |
| <b>36.    2, 12, 36, 80, 150, 252, ?</b>               |          |          |          |                  |
| A. 576                                                 | B. 392   | C. 354   | D. 382   | E. None of these |
| <b>37.    1, 5, 19, 81, 411, ?</b>                     |          |          |          |                  |
| A. 1651                                                | B. 2884  | C. 1792  | D. 2473  | E. None of these |
| <b>38.    9, 20, 36, 78, 148, 306, ?</b>               |          |          |          |                  |
| A. 612                                                 | B. 638   | C. 600   | D. 564   | E. None of these |
| <b>39.    17, 33, 64, 124, 240, 464, ?</b>             |          |          |          |                  |
| A. 946                                                 | B. 928   | C. 986   | D. 896   | E. None of these |
| <b>40.    15    19    83    119    631    ?</b>        |          |          |          |                  |
| A. 712                                                 | B. 693   | C. 683   | D. 731   | E. None of these |
| <b>41.    15    22    40    75    133    ?</b>         |          |          |          |                  |
| A. 243                                                 | B. 220   | C. 253   | D. 245   | E. None of these |
| <b>42.    24    31    52    87    136    ?</b>         |          |          |          |                  |
| A. 183                                                 | B. 189   | C. 177   | D. 199   | E. None of these |
| <b>43.    15    16    31    94    375    1876    ?</b> |          |          |          |                  |
| A. 12256                                               | B. 11056 | C. 10244 | D. 11256 | E. None of these |
| <b>44.    15    8    9    ?    32    82.5    250.5</b> |          |          |          |                  |
| A. 12                                                  | B. 15    | C. 25    | D. 26    | E. None of these |
| <b>45.    1    9    61    497    4981    ?</b>         |          |          |          |                  |
| A. 56108                                               | B. 58407 | C. 59415 | D. 59785 | E. 57108         |
| <b>46.    2    5    23    119    ?    4079</b>         |          |          |          |                  |
| A. 611                                                 | B. 659   | C. 451   | D. 320   | E. 560           |
|                                                        |          |          |          |                  |

**47.   3   4   14   73   515   ?**

A. 4644

B. 4678

C. 4640

D. 3446

E. 3648

**48.   7   16   30   62   122   ?**

A. 242

B. 240

C. 246

D. 244

E. 248

**49.   11043   11056   11045   11054   11047   ?**

A. 11051

B. 11049

C. 10521

D. 11056

E. 11052

**50.   256   128   192   480   ?   7560**

A. 1824

B. 1680

C. 1856

D. 1632

E. 1864

## Correct Answers

|    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|
| 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 |
| C  | C  | A  | B  | C  | C  | A  | D  | C  | E  |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| A  | D  | D  | D  | C  | B  | E  | D  | A  | D  |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| B  | D  | B  | A  | C  | A  | C  | B  | C  | D  |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| D  | D  | A  | C  | B  | B  | B  | C  | D  | D  |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| B  | D  | E  | B  | D  | B  | C  | C  | E  | B  |

## Explanations:

1.

| Series Pattern    | Series      |
|-------------------|-------------|
| 1024              | 1024        |
| $1024 \div 2 + 8$ | 520         |
| $520 \div 2 + 8$  | 268         |
| $268 \div 2 + 8$  | 142         |
| $142 \div 2 + 8$  | <b>79</b> ✓ |
| $79 \div 2 + 8$   | 47.5        |

Hence, option C is correct.

2.

| Series Pattern                                   | Given Series    |
|--------------------------------------------------|-----------------|
| 32                                               | 32 ✓            |
| $32 \times \frac{1}{2} + \frac{1}{2} = 16.5$     | 16.5            |
| $16.5 \times 1 + 1 = 17.5$                       | 17.5            |
| $17.5 \times \frac{3}{2} + \frac{3}{2} = 27.75$  | 27.75           |
| $27.75 \times 2 + 2 = 57.5$                      | 57.5            |
| $57.5 \times \frac{5}{2} + \frac{5}{2} = 146.25$ | <b>146.25</b> ✓ |

Therefore, option C is correct.

3.

| Series Pattern     | Given Series |
|--------------------|--------------|
| 6                  | 6            |
| $6 + 2 \times 5$   | 16           |
| $16 + 3 \times 6$  | 34           |
| $34 + 4 \times 7$  | 62           |
| $62 + 5 \times 8$  | 102          |
| $102 + 6 \times 9$ | <b>156</b> ✓ |

Hence, option (A) is correct.

4.

| Series Pattern     | Given Series |
|--------------------|--------------|
| $100 - (2)^2 + 5$  | 101          |
| $101 - (3)^2 + 10$ | 102          |
| $102 - (4)^2 + 15$ | 101          |
| $101 - (5)^2 + 20$ | 96           |
| $96 - (6)^2 + 25$  | <b>85</b>    |
| $85 - (7)^2 + 30$  | 66           |



Hence, option B is correct.

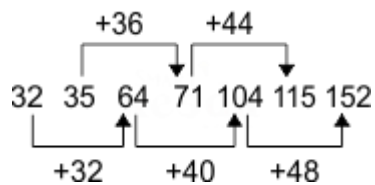
5.

| Series Pattern | Given Series |
|----------------|--------------|
| $2^2 - 1$      | 3            |
| $3^2 + 1$      | 10           |
| $5^2 - 1$      | 24           |
| $7^2 + 1$      | 50           |
| $11^2 - 1$     | <b>120</b>   |
| $13^2 + 1$     | 170          |



Hence, option C is correct.

6.



Hence, option (C) is correct.

7.

| Series Pattern         | Given Series |
|------------------------|--------------|
| 4                      | 4            |
| $4 \times 4 + 4 = 20$  | 20           |
| $4 \times 6 + 5 = 29$  | 29           |
| $4 \times 8 + 6 = 38$  | 38           |
| $4 \times 10 + 7 = 47$ | 47           |
| $4 \times 12 + 8 = 56$ | 56           |
| $4 \times 14 + 9 = 65$ | <b>65</b>    |



Hence, option (A) is correct.



8.

| Series Pattern                                        | Given Series  |
|-------------------------------------------------------|---------------|
| 9                                                     | 9             |
| $9 + 15 = 24$                                         | 24            |
| $24 + 15 \times 3 = 69$                               | 69            |
| $69 + 15 \times 3 \times 3 = 204$                     | 204           |
| $204 + 15 \times 3 \times 3 \times 3 = 609$           | 609           |
| $609 + 15 \times 3 \times 3 \times 3 \times 3 = 1824$ | <b>1824</b> ✓ |

Hence, option (D) is correct.

9.

| Series Pattern    | Given Series |
|-------------------|--------------|
| 582               | 582          |
| $582 + 169 = 751$ | 751          |
| $751 - 196 = 555$ | 555          |
| $555 + 169 = 724$ | 724          |
| $724 - 196 = 528$ | 528          |
| $528 + 169 = 697$ | <b>697</b> ✓ |

Hence, option (C) is correct.

10.

| Series Pattern            | Given Series |
|---------------------------|--------------|
| 14                        | 14           |
| $14 + 19 = 33$            | 33           |
| $33 + 19 \times 2 = 71$   | 71           |
| $71 + 19 \times 3 = 128$  | 128          |
| $128 + 19 \times 4 = 204$ | 204          |
| $204 + 19 \times 5 = 299$ | <b>299</b> ✓ |

Hence, option (E) is correct.

11.

| Series Pattern     | Given Series    |
|--------------------|-----------------|
| 8                  | 8               |
| $8 \times 1.5$     | 12              |
| $12 \times 1.5$    | 18              |
| $18 \times 1.5$    | 27              |
| $27 \times 1.5$    | 40.5            |
| $40.5 \times 1.5$  | 60.75           |
| $60.75 \times 1.5$ | <b>91.125</b> ✓ |

Hence, option (A) is correct.

12.

| Series Pattern | Given Series |
|----------------|--------------|
|----------------|--------------|

|                           |              |
|---------------------------|--------------|
| 13                        | 13           |
| $13 + 2 \times 1 = 15$    | 15           |
| $13 + 2^2 \times 2 = 21$  | 21           |
| $13 + 2^3 \times 3 = 37$  | 37           |
| $13 + 2^4 \times 4 = 77$  | 77           |
| $13 + 2^5 \times 5 = 173$ | 173          |
| $13 + 2^6 \times 6 = 397$ | <b>397</b> ✓ |

Hence, option (D) is correct.

13.

| Series Pattern | Given Series |
|----------------|--------------|
|----------------|--------------|

|            |               |
|------------|---------------|
| $93^2 - 1$ | 8648          |
| $94^2 - 2$ | 8834          |
| $95^2 - 3$ | 9022          |
| $96^2 - 4$ | 9212          |
| $97^2 - 5$ | 9404          |
| $98^2 - 6$ | 9598          |
| $99^2 - 7$ | <b>9794</b> ✓ |

Hence, option (D) is correct.

14.

| Series Pattern | Given Series |
|----------------|--------------|
|----------------|--------------|

|                             |               |
|-----------------------------|---------------|
| 23                          | 23            |
| $23 \times 1 - 2 = 21$      | 21            |
| $21 \times 2 + 3 = 45$      | 45            |
| $45 \times 3 - 4 = 131$     | 131           |
| $131 \times 4 + 5 = 529$    | 529           |
| $529 \times 5 - 6 = 2639$   | <b>2639</b> ✓ |
| $2639 \times 6 + 7 = 15841$ | 15841         |

Hence, option (D) is correct.

15.

| Series Pattern                      | Given Series |
|-------------------------------------|--------------|
| 64                                  | 64           |
| $64 + (6 \times 4) = 88$            | 88           |
| $88 + (8 \times 8) = 152$           | 152          |
| $152 + (1 \times 5 \times 2) = 162$ | 162          |
| $162 + (1 \times 6 \times 2) = 174$ | 174          |
| $174 + (1 \times 7 \times 4) = 202$ | <b>202</b> ✓ |

Hence, option (C) is correct.

16.

| Series Pattern     | Given Series |
|--------------------|--------------|
| 43                 | 43           |
| $43 + 2^2 = 47$    | 47           |
| $47 + 3^2 = 56$    | 56           |
| $56 + 5^2 = 81$    | 81           |
| $81 + 7^2 = 130$   | 130          |
| $130 + 11^2 = 164$ | <b>251</b> ✓ |

Hence, option (B) is correct.

17.

| Series Pattern                                                  | Given Series  |
|-----------------------------------------------------------------|---------------|
| 204                                                             | 204           |
| $204 + 1 = 205$                                                 | 205           |
| $205 - (1 \times 2) = 203$                                      | 203           |
| $203 + (1 \times 2 \times 3) = 209$                             | 209           |
| $209 - (1 \times 2 \times 3 \times 4) = 185$                    | 185           |
| $185 + (1 \times 2 \times 3 \times 4 \times 5) = 305$           | 305           |
| $305 - (1 \times 2 \times 3 \times 4 \times 5 \times 6) = -415$ | <b>-415</b> ✓ |

Hence, option (E) is correct.

18.

| Series Pattern             | Given Series |
|----------------------------|--------------|
| 1022                       | 1022         |
| $1022 - 13 = 1009$         | 1009         |
| $1009 - 13 \times 2 = 983$ | 983          |
| $983 - 13 \times 3 = 944$  | 944          |
| $944 - 13 \times 4 = 892$  | 892          |
| $892 - 13 \times 5 = 827$  | <b>827</b> ✓ |

Hence, option (D) is correct.

19.

| Series Pattern                              | Given Series |
|---------------------------------------------|--------------|
| 1025                                        | 1025         |
| $1025 - (1^2) = 1024$                       | 1024         |
| $1024 - (1^2 + 2^2) = 1019$                 | 1019         |
| $1019 - (1^2 + 2^2 + 3^2) = 1005$           | 1005         |
| $1005 - (1^2 + 2^2 + 3^2 + 4^2) = 975$      | 975          |
| $975 - (1^2 + 2^2 + 3^2 + 4^2 + 5^2) = 920$ | <b>920</b> ✓ |

Hence, option (A) is correct.

20.

| Series Pattern               | Given Series |
|------------------------------|--------------|
| 196                          | 196          |
| $196 + 5 \times 1 = 201$     | 201          |
| $201 + 5 \times 1.5 = 208.5$ | 208.5        |
| $208.5 + 5 \times 2 = 218.5$ | 218.5        |
| $218.5 + 5 \times 2.5 = 231$ | 231          |
| $231 + 5 \times 3 = 246$     | <b>246</b> ✓ |

**Alternate Solution:-**

As we can see the difference between the numbers are 5, 7.5, 10, 12.5 respectively and it is in AP with common difference 2.5. So to get the last term we need to add  $(12.5 + 2.5) = 15$ . So the last term will be  $231 + 15 = 246$

Hence, option (D) is correct.

21.

| Series Pattern            | Given Series |
|---------------------------|--------------|
| 489                       | 489          |
| $489 + (4 + 8 + 9) = 510$ | 510          |
| $510 + (5 + 1 + 0) = 516$ | 516          |
| $516 + (5 + 1 + 6) = 528$ | 528          |
| $528 + (5 + 2 + 8) = 543$ | 543          |
| $543 + (5 + 4 + 3) = 555$ | 555          |
| $555 + (5 + 5 + 5) = 570$ | <b>570</b> ✓ |

Hence, option (B) is correct.

22.

| Series Pattern                  | Given Series |
|---------------------------------|--------------|
| 81                              | 81           |
| $81 + (1^3 + 8 + 1) = 91$       | 91           |
| $91 + (2^3 + 9 + 1) = 109$      | 109          |
| $109 + (3^3 + 1 + 0 + 9) = 146$ | 146          |
| $146 + (4^3 + 1 + 4 + 6) = 221$ | 221          |
| $221 + (5^3 + 2 + 2 + 1) = 351$ | 351          |
| $351 + (6^3 + 3 + 5 + 1) = 576$ | <b>576</b> ✓ |

Hence, option (D) is correct.

23.

| Series Pattern   | Given Series |
|------------------|--------------|
| 540              | 540          |
| $540 - 2 = 538$  | 538          |
| $538 - 4 = 534$  | 534          |
| $534 - 8 = 526$  | 526          |
| $526 - 16 = 510$ | 510          |
| $510 - 32 = 478$ | <b>478</b> ✓ |
| $478 - 64 = 414$ | 414          |

Hence, option (B) is correct.

24.

| Series Pattern  | Given Series  |
|-----------------|---------------|
| 32              | 32            |
| $32 \div 2 + 8$ | 24            |
| $24 \div 2 + 8$ | 20            |
| $20 \div 2 + 8$ | 18            |
| $18 \div 2 + 8$ | 17            |
| $17 \div 2 + 8$ | <b>16.5</b> ✓ |

Hence, option (A) is correct.

25.

| Series Pattern                                                    | Given Series   |
|-------------------------------------------------------------------|----------------|
| 1                                                                 | 1              |
| $1 + 2 = 3$                                                       | 3              |
| $3 + 2 \times 3 = 9$                                              | 9              |
| $9 + 2 \times 3 \times 5 = 39$                                    | 39             |
| $39 + 2 \times 3 \times 5 \times 7 = 249$                         | 249            |
| $249 + 2 \times 3 \times 5 \times 7 \times 11 = 2559$             | 2559           |
| $2559 + 2 \times 3 \times 5 \times 7 \times 11 \times 13 = 32589$ | <b>32589</b> ✓ |

Hence, option (C) is correct.

26.

| Series Pattern              | Given Series   |
|-----------------------------|----------------|
| 704                         | 704            |
| $704 \times (1/8) = 88$     | 88             |
| $88 \times (2/8) = 22$      | 22             |
| $22 \times (3/8) = 8.25$    | 8.25           |
| $8.25 \times (4/8) = 4.125$ | <b>4.125</b> ✓ |

Hence, option (A) is correct.

27.

| Series Pattern  | Given Series |
|-----------------|--------------|
| $1^3 + 1 = 2$   | 2            |
| $2^3 + 2 = 10$  | 10           |
| $3^3 + 3 = 30$  | 30           |
| $4^3 + 4 = 68$  | 68           |
| $5^3 + 5 = 130$ | 130          |
| $6^3 + 6 = 222$ | <b>222</b> ✓ |

Hence, option (C) is correct.

28.

| Series Pattern         | Given Series |
|------------------------|--------------|
| 1                      | 1            |
| $1 + (2^2 - 1) = 4$    | 4            |
| $4 + (3^2 + 2) = 15$   | 15           |
| $15 + (4^2 - 3) = 28$  | 28           |
| $28 + (5^2 + 4) = 57$  | 57           |
| $57 + (6^2 - 5) = 88$  | 88           |
| $88 + (7^2 + 6) = 143$ | <b>143</b> ✓ |

Hence, option (B) is correct.

29.

| Series Pattern   | Given Series |
|------------------|--------------|
| $11^2 + 1 = 122$ | 122          |
| $13^2 + 2 = 171$ | 171          |
| $15^2 + 3 = 228$ | 228          |
| $17^2 + 4 = 293$ | 293          |
| $19^2 + 5 = 366$ | 366          |
| $21^2 + 6 = 447$ | <b>447</b> ✓ |

Hence, option (C) is correct.

30.

**Series Pattern    Given Series**

|                 |           |   |
|-----------------|-----------|---|
| 13              | 13        |   |
| $13 + 2 = 15$   | 15        |   |
| $15 + 2^2 = 19$ | 19        |   |
| $19 + 2^3 = 27$ | 27        |   |
| $27 + 2^4 = 43$ | 43        |   |
| $43 + 2^5 = 75$ | <b>75</b> | ✓ |

Hence, option (D) is correct.

31.

|                    |    |    |    |    |     |   |
|--------------------|----|----|----|----|-----|---|
| <b>Series I :</b>  | 25 | 33 | 54 | 99 | 179 | ? |
| <b>Series II :</b> | 8  | 21 | 45 | 80 |     | ? |
| <b>Series III:</b> | 13 | 24 | 35 |    |     | ? |
| <b>Series IV:</b>  |    | 11 | 11 | 11 |     |   |
|                    |    | 0  | 0  |    |     |   |

Clearly, the pattern in series III is +11.

So, the missing term in series III =  $35 + 11 = 46$ ;

∴ missing term in series II =  $80 + 46 = 126$ ;

∴ missing term in series I =  $126 + 179 = 305$ .

Finally the series will become as follows:

|                    |    |    |    |    |           |            |
|--------------------|----|----|----|----|-----------|------------|
| <b>Series I :</b>  | 25 | 33 | 54 | 99 | 179       | <b>305</b> |
| <b>Series II :</b> | 8  | 21 | 45 | 80 |           | <b>126</b> |
| <b>Series III:</b> | 13 | 24 | 35 |    | <b>46</b> |            |
| <b>Series IV:</b>  |    | 11 | 11 | 11 |           |            |
|                    |    | 0  | 0  |    |           |            |

Hence, option D is correct.

32. Approach I:

**Series Pattern    Given Series**

|                                |            |   |
|--------------------------------|------------|---|
| 384                            | 384        |   |
| $384 - 7 (=1 \times 7) = 377$  | 377        |   |
| $377 - 21 (=3 \times 7) = 356$ | 356        |   |
| $356 - 35 (=5 \times 7) = 321$ | 321        |   |
| $321 - 49 (=7 \times 7) = 272$ | <b>272</b> | ✓ |
| $272 - 63 (=9 \times 7) = 209$ | 209        |   |

### Approach II: Triangular Method

**Series I** : 384 377 356 321 ? 209

**Series II** : -7 -21 -35 ? ?

**Series III** : -14 -14 -14 -14

**Series IV** : 0 0

Clearly, the pattern in series II is  $-14$ . So, the missing term in series II =  $-14 - 35 = -49$ ; and the next missing term in series II =  $-14 - 49 = -63$ ;  $\therefore$  missing term in series I =  $321 - 49 = 272$ . Finally the series will become as follows:

**Series I** : 384 377 356 321 **272** 209

**Series II** : -7 -21 -35 **-49** **-63**

**Series III** : -14 -14 -14 -14

**Series IV** : 0 0 0

Hence, option D is correct.

**33.**

**Series I** : 5 9 16 32 75 ?

**Series II** : 4 7 16 43 ?

**Series III** : 3 9 27 ?

**Series IV** :  $\times 3$   $\times 3$   $\times 3$

Clearly, the pattern in series III is multiples of 3.

So, the missing term in series III =  $27 \times 3 = 81$

$\therefore$  missing term in series II =  $43 + 81 = 124$ ;

$\therefore$  missing term in series I =  $75 + 124 = 199$ . Finally the series become as follows:

**Series I** : 5 9 16 32 75 **199**

**Series II** : 4 7 16 43 **124**

**Series III** : 3 9 27 **81**

**Series IV** :  $\times 3$   $\times 3$   $\times 3$

Hence, option A is correct.

**34.**

| Series Pattern | Given Series |
|----------------|--------------|
|----------------|--------------|

|                    |   |
|--------------------|---|
| $2^2 \times 1 - 1$ | 3 |
|--------------------|---|

|                    |    |
|--------------------|----|
| $3^2 \times 2 - 2$ | 16 |
|--------------------|----|

|                    |    |
|--------------------|----|
| $4^2 \times 3 - 3$ | 45 |
|--------------------|----|

|                    |    |
|--------------------|----|
| $5^2 \times 4 - 4$ | 96 |
|--------------------|----|

|                    |     |
|--------------------|-----|
| $6^2 \times 5 - 5$ | 175 |
|--------------------|-----|

|                    |              |
|--------------------|--------------|
| $7^2 \times 6 - 6$ | <b>288</b> ✓ |
|--------------------|--------------|

Hence, option C is correct.



35.

Series Pattern    Given Series

|                     |              |
|---------------------|--------------|
| 3                   | 3            |
| $3 \times 2 + 5$    | 11           |
| $11 \times 2 + 7$   | 29           |
| $29 \times 2 + 9$   | 67           |
| $67 \times 2 + 11$  | 145          |
| $145 \times 2 + 13$ | <b>303</b> ✓ |

Hence, option B is correct.

36.

Series Pattern    Series

|             |              |
|-------------|--------------|
| $1^2 + 1^3$ | 2            |
| $2^2 + 2^3$ | 12           |
| $3^2 + 3^3$ | 36           |
| $4^2 + 4^3$ | 80           |
| $5^2 + 5^3$ | 150          |
| $6^2 + 6^3$ | 252          |
| $7^2 + 7^3$ | <b>392</b> ✓ |

Hence, option B is correct.

37.

Series Pattern    Series

|                      |               |
|----------------------|---------------|
| 1                    | 1             |
| $(1 \times 2) + 3$   | 5             |
| $(5 \times 3) + 4$   | 19            |
| $(19 \times 4) + 5$  | 81            |
| $(81 \times 5) + 6$  | 411           |
| $(411 \times 6) + 7$ | <b>2473</b> ✓ |

Hence, option D is correct.

38.

Series Pattern    Series

|                     |              |
|---------------------|--------------|
| 9                   | 9            |
| $9 \times 2 + 2$    | 20           |
| $20 \times 2 - 4$   | 36           |
| $36 \times 2 + 6$   | 78           |
| $78 \times 2 - 8$   | 148          |
| $148 \times 2 + 10$ | 306          |
| $306 \times 2 - 12$ | <b>600</b> ✓ |

Hence, option C is correct.

**39.** As series begins with 17, the pattern followed is;

| Series Pattern      | Series       |
|---------------------|--------------|
| 17                  | 17           |
| $2 \times 17 - 1$   | 33           |
| $2 \times 33 - 2$   | 64           |
| $2 \times 64 - 4$   | 124          |
| $2 \times 124 - 8$  | 240          |
| $2 \times 240 - 16$ | 464          |
| $2 \times 464 - 32$ | <b>896</b> ✓ |

Hence, option D is correct.

**40.**

| Series Pattern              | Given Series |
|-----------------------------|--------------|
| 15                          | 15           |
| $15 + 2^2 = 19$             | 19           |
| $19 + 4^3 = 83$             | 83           |
| $83 + 6^2 = 119$            | 119          |
| $119 + 8^3 = 631$           | 631          |
| $631 + 10^2 = \mathbf{731}$ | <b>731</b> ✓ |

Hence, option D is correct.

**41.**

|                    |     |     |     |     |     |   |
|--------------------|-----|-----|-----|-----|-----|---|
| <b>Series I :</b>  | 15  | 22  | 40  | 75  | 133 | ? |
| <b>Series II :</b> | +7  | +18 | +35 | +58 | ?   |   |
| <b>Series III:</b> | +11 | +17 | +23 | ?   |     |   |
| <b>Series IV:</b>  |     | +6  | +6  | +6  |     |   |
|                    |     | 0   | 0   |     |     |   |

Clearly, the pattern of series III is that '6' is added to get the next number. So, the missing term in series III is  $(23 + 6) = 29$ ;  $\therefore$  missing term in series II is  $(58 + 29) = 87$ ;  $\therefore$  missing term in series I is  $(87 + 133) = 220$ . Finally the series will become as follows:

|                     |     |     |     |            |            |            |
|---------------------|-----|-----|-----|------------|------------|------------|
| <b>Series I :</b>   | 15  | 22  | 40  | 75         | 133        | <b>220</b> |
| <b>Series II :</b>  | +7  | +18 | +35 | +58        | <b>+87</b> |            |
| <b>Series III :</b> | +11 | +17 | +23 | <b>+29</b> |            |            |
| <b>Series IV :</b>  |     | +6  | +6  | +6         |            |            |
|                     |     | 0   | 0   |            |            |            |

Hence, option B is correct.

42.

| Series Pattern                 | Given Series |
|--------------------------------|--------------|
| 24                             | 24           |
| $24 + 7 (=7 \times 1) = 31$    | 31           |
| $31 + 21 (=7 \times 3) = 52$   | 52           |
| $52 + 35 (=7 \times 5) = 87$   | 87           |
| $87 + 49 (=7 \times 7) = 136$  | 136          |
| $136 + 63 (=7 \times 9) = 199$ | <b>199</b> ✓ |

Hence, the option D is correct.

43.

| Series Pattern              | Given Series   |
|-----------------------------|----------------|
| 15                          | 15             |
| $15 \times 1 + 1 = 16$      | 16             |
| $16 \times 2 - 1 = 31$      | 31             |
| $31 \times 3 + 1 = 94$      | 94             |
| $94 \times 4 - 1 = 375$     | 375            |
| $375 \times 5 + 1 = 1876$   | 1876           |
| $1876 \times 6 - 1 = 11255$ | <b>11255</b> ✓ |

Hence, the option E is correct.

44.

| Series Pattern                               | Given Series |
|----------------------------------------------|--------------|
| 15                                           | 15           |
| $15 \times \frac{1}{2} + \frac{1}{2} = 8$    | 8            |
| $8 \times 1 + 1 = 9$                         | 9            |
| $9 \times \frac{3}{2} + \frac{3}{2} = 15$    | 15 ✓         |
| $15 \times 2 + 2 = 32$                       | 32           |
| $32 \times \frac{5}{2} + \frac{5}{2} = 82.5$ | 82.5         |
| $82.5 \times 3 + 3 = 250.5$                  | 250.5        |

Hence, the option B is correct.

45.

| Series Pattern        | Given Series   |
|-----------------------|----------------|
| 1                     | 1              |
| $1 \times 4 + 5$      | 9              |
| $9 \times 6 + 7$      | 61             |
| $61 \times 8 + 9$     | 497            |
| $497 \times 10 + 11$  | 4981           |
| $4981 \times 12 + 13$ | <b>59785</b> ✓ |

Hence, option D is correct.

46.

| Series Pattern       | Given Series |
|----------------------|--------------|
| 2                    | 2            |
| $2 \times 2 + 1^3$   | 5            |
| $5 \times 3 + 2^3$   | 23           |
| $23 \times 4 + 3^3$  | 119          |
| $119 \times 5 + 4^3$ | <b>659</b> ✓ |
| $320 \times 6 + 5^3$ | 4079         |

Hence, option B is correct.

47.

| Series Pattern     | Given Series  |
|--------------------|---------------|
| 3                  | 3             |
| $3 \times 1 + 1$   | 4             |
| $4 \times 3 + 2$   | 14            |
| $14 \times 5 + 3$  | 73            |
| $73 \times 7 + 4$  | 515           |
| $515 \times 9 + 5$ | <b>4640</b> ✓ |

Hence, option C is correct.

48.

| Series Pattern      | Series       |
|---------------------|--------------|
| 9                   | 9            |
| $9 \times 2 + 2$    | 20           |
| $20 \times 2 - 4$   | 36           |
| $36 \times 2 + 6$   | 78           |
| $78 \times 2 - 8$   | 148          |
| $148 \times 2 + 10$ | 306          |
| $306 \times 2 - 12$ | <b>600</b> ✓ |

Hence, option C is correct.

49.

| Series Pattern | Given Series |
|----------------|--------------|
|----------------|--------------|

|              |              |
|--------------|--------------|
| 11043        | 11043        |
| $11043 + 13$ | 11056        |
| $11056 - 11$ | 11045        |
| $11045 + 9$  | 11054        |
| $11054 - 7$  | 11047        |
| $11047 + 5$  | <b>11052</b> |



Hence, option E is correct.

50.

| Series Pattern | Given Series |
|----------------|--------------|
|----------------|--------------|

|                   |             |
|-------------------|-------------|
| 256               | 256         |
| $256 \times 0.5$  | 128         |
| $128 \times 1.5$  | 192         |
| $192 \times 2.5$  | 480         |
| $480 \times 3.5$  | <b>1680</b> |
| $1680 \times 4.5$ | 7560        |



Hence, option B is correct.

Join us on Telegram for more **PDFs**  
Click here

