

## NUMBER SERIES

### NATIONALISED BANKS & IBPS SO/MT/SO Directions

**(1-5):** In the following number series, a wrong number is given. Find out that wrong number.

**(Canara Bank PO Exam. 09.02.2003)**

1. 2 11 38 197 1172 8227 65806  
(1) 11 (2) 38  
(3) 197 (4) 1172  
(5) 8227
2. 16 19 21 30 46 71 107  
(1) 19 (2) 21  
(3) 30 (4) 46  
(5) 71
3. 7 9 16 25 41 68 107 173  
(1) 107 (2) 16  
(3) 41 (4) 68  
(5) 25
4. 4 2 3.5 7.5 26.25 118.125  
(1) 118.125 (2) 26.25  
(3) 3.5 (4) 2  
(5) 7.5
5. 16 4 2 1.5 1.75 1.875  
(1) 1.875 (2) 1.75  
(3) 1.5 (4) 2  
(5) 4

**Directions (6-10):** What will come in place of the question mark (?) in the following number series ?

**(Syndicate Bank PO Exam. 10.10.2004)**

6. 3 10 32 100 ?  
(1) 345 (2) 460  
(3) 308 (4) 440  
(5) None of these
7. 5 3 4 ? 38  
(1) 8.5 (2) 6  
(3) 7.5 (4) 8  
(5) None of these
8. 5 6 ? 57 244  
(1) 21 (2) 16  
(3) 17 (4) 15  
(5) None of these
9. 3 10 21 ? 51  
(1) 34 (2) 32  
(3) 33 (4) 37  
(5) None of these
10. 5 11 ? 55 117  
(1) 21 (2) 27  
(3) 23 (4) 25  
(5) None of these

**Directions (11-15):** In each of the following questions a number series is given. After the series a number is given followed by (a), (b), (c), (d) and (e). You have to complete the series starting with

the number given, following the sequence of the original series and answer the questions that follow the series.

**(Union Bank of India**

**PO Exam. 27.11.2005)**

11. 12 30 120 460 1368 2730  
16 (a) (b) (c) (d) (e) What will come in place of (d) ?  
(1) 1384 (2) 2642  
(3) 2808 (4) 1988  
(5) None of these
12. 154 462 231 693 346.5 1039.5  
276 (a) (b) (c) (d) (e)  
What will come in place of (e) ?  
(1) 1746 (2) 621  
(3) 1242 (4) 983  
(5) None of these
13. 7 91 1001 7007 35035 105  
14.5 (a) (b) (c) (d) (e)  
What will come in place of (c) ?  
(1) 21132.5 (2) 14514.5  
(3) 20020.5 (4) 13864.5  
(5) None of these
14. 582 574 601 537 662 446  
204 (a) (b) (c) (d) (e)  
What will come in place of (d) ?  
(1) 284 (2) 68  
(3) 174 (4) 331  
(5) None of these
15. 85 43 44 67.5 137 345  
125 (a) (b) (c) (d) (e)  
What will come in place of (c) ?  
(1) 86 (2) 107.5  
(3) 112.5 (4) 97.5  
(5) None of these

**Directions (16-22) :** What will come in place of the question mark (?) in the following number series ?

**(Corporation Bank Po**

**Exam. 29.07.2006)**

16. 1 ? 27 64 125  
(1) 8 (2) 4  
(3) 6 (4) 9  
(5) None of these
17. 25 16 ? 4 1  
(1) 3 (2) 6  
(3) 12 (4) 18  
(5) None of these
18. 1 6 36 240 1960 ?  
(1) 19660 (2) 3680  
(3) 36800 (4) 19600  
(5) None of these
19. 12 14 17 13 8 14 21 13 4 ?

- (1) 14 (2) 13  
(3) 15 (4) 2  
(5) None of these
20. 2 5 7 12 19 31 50 ?  
(1) 53 (2) 81  
(3) 69 (4) 74  
(5) None of these
21. 15 12 17 10 ? 8 21 6  
(1) 3 (2) 7  
(3) 21 (4) 19  
(5) None of these
22. 4 6 12 30 90 315 ?  
(1) 945 (2) 1102  
(3) 1260 (4) 1417.5  
(5) None of these

**Directions (16-22) :** What should come in place of the question mark (?) in the following number series ?

**(Bank Of Maharashtra PO Exam. 29.07.2006)**

23. 1548 516 129 43 ?  
(1) 11 (2) 10.75  
(3) 9.5 (4) 12  
(5) None of these
24. 949 189.8 ? 22.776 11.388 6.8328  
(1) 48.24 (2) 53.86  
(3) 74.26 (4) 56.94  
(5) None of these
25. 121 144 190 259 ? 466  
(1) 351 (2) 349  
(3) 374 (4) 328  
(5) None of these
26. 14 43.5 264 ? 76188  
(1) 3168 (2) 3176  
(3) 1587 (4) 1590  
(5) None of these
27. 41 164 2624 ? 6045696  
(1) 104244 (2) 94644  
(3) 94464 (4) 102444  
(5) None of these

**Directions (28-32) :** What should come in place of question mark (?) in the following number series ?

**(Indian Overseas Bank PO Exam. 15.06.2008)**

28. 12 12 18 45 180 1170 ?  
(1) 12285 (2) 10530  
(3) 11700 (4) 12870  
(5) 7605
29. 444 467 513 582 674 789 ?  
(1) 950 (2) 904  
(3) 927 (4) 881  
(5) 973
30. 1 16 81 256 625 1296 ?  
(1) 4096 (2) 2401

- (3) 1764 (4) 3136  
(5) 6561

31. 23 25 53 163 657 3291 ?  
(1) 16461 (2) 13169  
(3) 9877 (4) 23045  
(5) 19753
32. 13 13 65 585 7605 129285 ?  
(1) 2456415 (2) 2235675  
(3) 2980565 (4) 2714985  
(5) 2197845

**Directions (33-37) :** What should come in place of question mark (?) in the following number series ?

**(Andhra Bank PO Exam. 14.09.2008)**

33. 40280625 732375 16275 465 18.6 1.24 ?  
(1) 0.248 (2) 0.336  
(3) 0.424 (4) 0.512  
(5) 0.639
34. 14 12 21 59 231 1149 ?  
(1) 6987 (2) 6787  
(3) 6887 (4) 6687  
(5) 6587
35. 1728 2744 4096 5832 8000 10648 ?  
(1) 12167 (2) 13824  
(3) 15625 (4) 9261  
(5) 17576
36. 120 15 105 17.5 87.5 ?  
(1) 18.5 (2) 19.5  
(3) 21.875 (4) 17.5  
(5) 90
37. 3 6 21 28 55 66 ? 120  
(1) 103 (2) 104  
(3) 108 (4) 106  
(5) 105

**Directions (38-42) :** In each of the following questions a number series is given which has only one **wrong** number. You have to find out the **wrong** number.

**(Bank Of Baroda Specialist Officer Exam. 05.10.2008)**

38. 7.25 47.5 87.5 157.5 247.5 357.5 487.5  
(1) 357.5 (2) 87.5  
(3) 157.5 (4) 7.5  
(5) 47.5
39. 13 16 21 27 39 52 69  
(1) 21 (2) 39  
(3) 27 (4) 52  
(5) 16
40. 1500 1581 1664 1749 1833 1925 2016  
(1) 1581 (2) 1664  
(3) 1833 (4) 1925 (5) 1749
41. 66 91 120 153 190 233 276

- (1) 120 (2) 233  
 (3) 153 (4) 276  
 (5) 190

42. 1331 2197 3375 4914 6859 9261  
 12167  
 (1) 4914 (2) 6859  
 (3) 9261 (4) 2197  
 (5) 12167

**Directions (43-47):** What should come in place of the question mark (?) in the following number series ?

**(Oriental Bank of Commerce  
 PO Exam. 21.12.2008)**

43. 20 24 33 49 74 110 ?  
 (1) 133 (2) 147  
 (3) 159 (4) 163  
 (5) 171
44. 529 841 961 1369 1681 1849 ?  
 (1) 2809 (2) 2601  
 (3) 3249 (4) 3481  
 (5) 2209
45. 16 24 48 120 360 1260 ?  
 (1) 3780 (2) 4725  
 (3) 5355 (4) 5040  
 (5) 4410
46. 8 31 122 485 1936 7739 ?  
 (1) 30950 (2) 46430  
 (3) 34650 (4) 42850  
 (5) 38540
47. 499 622 868 1237 1729 2344 ?  
 (1) 3205 (2) 3082  
 (3) 2959 (4) 3462  
 (5) 2876

**Directions (48-52):** In the following number series only one number is **wrong**. Find out the **wrong** number.

**(PNB Agriculture Officer  
 Exam. 04.01.2009)**

48. 1 4 27 256 3125 46658  
 (1) 46658 (2) 4  
 (3) 27 (4) 3125  
 (5) None of these
49. 18000 3600 720 142.2 28.8 5.76  
 (1) 28.8 (2) 3600  
 (3) 5.76 (4) 142.2  
 (5) None of these
50. 12 237 406 527 604 657  
 (1) 237 (2) 406  
 (3) 527 (4) 657  
 (5) None of these
51. 3 35 226 1160 4660 13998  
 (1) 13998 (2) 4660  
 (3) 226 (4) 1160  
 (5) None of these
52. 18 119 708 3534 14136 42405

- (1) 708 (2) 3534  
 (3) 14136 (4) 42405  
 (5) None of these

**Directions (53-57):** What should come in place of question mark (?) in the following number series ?

**(Canara Bank PO Exam. 15.03.2009)**

53. 5 9 18 34 59 95 ?  
 (1) 272 (2) 168  
 (3) 116 (4) 148  
 (5) 144
54. 1200 480 192 76.8 30.72 12.288 ?  
 (1) 4.9152 (2) 5.8192  
 (3) 6.7112 (4) 7.6132  
 (5) 8.5172
55. 963 927 855 747 603 423 ?  
 (1) 209 (2) 208  
 (3) 207 (4) 206  
 (5) 205
56. 841 961 1089 1225 1369 1521 ?  
 (1) 1581 (2) 1681  
 (3) 1781 (4) 1881  
 (5) 1981
57. 18 20 44 138 560 2810 ?  
 (1) 16818 (2) 16836  
 (3) 16854 (4) 16872  
 (5) 16890

**Directions (58-62):** In the following number series only one number is **wrong**. Find out the **wrong** number.

**(UCO Bank PO Exam. 22.03.2009)**

58. 4 6 18 49 201 1011  
 (1) 1011 (2) 201  
 (3) 18 (4) 49  
 (5) None of these
59. 48 72 108 162 243 366  
 (1) 72 (2) 108  
 (3) 162 (4) 243  
 (5) None of these
60. 2 54 300 1220 3674 7350  
 (1) 3674 (2) 1220  
 (3) 300 (4) 54  
 (5) None of these
61. 8 27 64 125 218 343  
 (1) 27 (2) 218  
 (3) 125 (4) 343  
 (5) None of these
62. 19 68 102 129 145 154  
 (1) 154 (2) 129  
 (3) 145 (4) 102  
 (5) None of these

**Directions (63-67):** What should come in place of the question mark (?) in the following number series ?

**(Indian Overseas Bank  
 PO Exam. 05.04.2009)**

- 63.** 0 5 18 43 84 145 ?  
 (1) 220 (2) 240  
 (3) 260 (4) 280  
 (5) None of these
- 64.** 10 17 48 165 688 3475 ?  
 (1) 27584 (2) 25670  
 (3) 21369 (4) 20892  
 (5) None of these
- 65.** 1 3 24 360 8640 302400 ?  
 (1) 14525100 (2) 154152000  
 (3) 14515200 (4) 15425100  
 (5) None of these
- 66.** 12 14 32 102 416 2090 ?  
 (1) 15522 (2) 12552  
 (3) 13525 (4) 17552  
 (5) None of these
- 67.** 10 15 15 12.5 9.375 6.5625 ?  
 (1) 4.375 (2) 3.2375  
 (3) 4.6275 (4) 3.575  
 (5) None of these

**Directions (68-72) :** What will come in place of the question mark (?) in each of the following series ?

- 68.** 17 52 158 477 ? 4310  
 (1) 1433 (2) 1432  
 (3) 1435 (4) 1434  
 (5) None of these
- 69.** 3 22 ? 673 2696 8093  
 (1) 133 (2) 155  
 (3) 156 (4) 134  
 (5) None of these
- 70.** 6 13 38 ? 532 2675  
 (1) 129 (2) 123  
 (3) 172 (4) 164  
 (5) None of these
- 71.** 286 142 ? 34 16 7  
 (1) 66 (2) 72  
 (3) 64 (4) 74  
 (5) None of these
- 72.** 17 9 ? 16.5 35 90  
 (1) 5 (2) 15  
 (3) 10 (4) 20  
 (5) None of these

**Directions (73-77):** What will come in place of the question mark (?) in each of the following number series ?

**(Andhra Bank PO Exam 05.07.2009)**

- 73.** 2 8 26 ? 242  
 (1) 78 (2) 72  
 (3) 82 (4) 84  
 (5) None of these
- 74.** 3 4 12 ? 196  
 (1) 45 (2) 40  
 (3) 41 (4) 49  
 (5) None of these

- 75.** 9 17 ? 65 129  
 (1) 32 (2) 24  
 (3) 35 (4) 33  
 (5) None of these
- 76.** 7 13 ? 49 97  
 (1) 27 (2) 25  
 (3) 23 (4) 29  
 (5) None of these
- 77.** 5 3 6 ? 64.75  
 (1) 15 (2) 15.5  
 (3) 17.5 (4) 17.25  
 (5) None of these

**Directions (78-82) :** What will come in place of the question mark (?) in each of the following number series ?

**(PNB Specialist Officer's Exam. 16.08.2009)**

- 78.** 16 8 12 30 ?  
 (1) 75 (2) 105  
 (3) 95 (4) 115  
 (5) None of these

**(United Bank of India PO Exam. 21.06.2009)**

- 79.** 5 6 14 45 ?  
 (1) 138 (2) 154  
 (3) 118 (4) 184  
 (5) None of these
- 80.** 7 12 32 105 ?  
 (1) 428 (2) 214  
 (3) 218 (4) 416  
 (5) None of these
- 81.** 11 23 47 95 ?  
 (1) 189 (2) 193  
 (3) 181 (4) 195  
 (5) None of these
- 82.** 9 17 33 65 ?  
 (1) 113 (2) 131  
 (3) 129 (4) 118  
 (5) None of these

**Directions (83-84) :** In the following number series only one number is **wrong**. Find out the **wrong** number.

**(Corporation Bank PO Exam. 22.11.2009)**

- 83.** 8 11 17 47 128 371 1100  
 (1) 11 (2) 47  
 (3) 17 (4) 371  
 (5) 128
- 84.** 1 5 13 31 61 125 253  
 (1) 1 (2) 5  
 (3) 31 (4) 61  
 (5) 125

**Directions (85-89) :** In the following number series a **wrong** number is given. Find out the **wrong** number.

**(Indian Bank Rural Marketing  
Officer Exam. 03.01.2010)**

- 85.** 150 290 560 1120 2140 4230  
8400  
(1) 2140 (2) 560  
(3) 1120 (4) 4230  
(5) 290
- 86.** 10 8 13 35 135 671 4007  
(1) 8 (2) 671  
(3) 135 (4) 13  
(5) 35
- 87.** 80 42 24 13.5 8.75 6.375 5.1875  
(1) 8.75 (2) 13.5  
(3) 24 (4) 6.375  
(5) 42
- 88.** 125 75 45 25 16.2 9.72 5.832  
(1) 25 (2) 45  
(3) 9.72 (4) 16.2  
(5) 75
- 89.** 29 37 21 43 13 53 5  
(1) 37 (2) 53  
(3) 13 (4) 21  
(5) 43

**Directions (90-94):** In the following number series only one number is **wrong**. Find out the **wrong** number.

**(Indian Bank PO Exam. 17.10.2010)**

- 90.** 13 25 40 57 79 103 130  
(1) 25 (2) 40  
(3) 57 (4) 79  
(5) None of these
- 91.** 850 600 550 500 475 462.5  
456.25  
(1) 600 (2) 550  
(3) 500 (4) 462.5  
(5) None of these
- 92.** 2 10 18 54 162 486 1458  
(1) 18 (2) 54  
(3) 162 (4) 10  
(5) None of these
- 93.** 8 12 24 46 72 108 152  
(1) 12 (2) 24  
(3) 46 (4) 72  
(5) None of these
- 94.** 142 119 100 83 65 59 52  
(1) 65 (2) 100  
(3) 59 (4) 119  
(5) None of these

**Directions (95-99):** What should come in place of the question mark in the following number series ?

**(Bank Of India Banking  
Officer Exam. 24.01.2010)**

- 95.** 5 54 90 115 131 140 ?

- (1) 149 (2) 146  
(3) 142 (4) 152  
(5) None of these

- 96.** 7 4 5 9 ? 52.5 160.5  
(1) 32 (2) 16  
(3) 14 (4) 20  
(5) None of these

- 97.** 6 42 ? 1260 5040 15120 30240  
(1) 546 (2) 424  
(3) 252 (4) 328  
(5) None of these

- 98.** 4 10 40 190 940 ? 23440  
(1) 4690 (2) 2930  
(3) 5140 (4) 3680  
(5) None of these

- 99.** 2 9 30 ? 436 2195 13182  
(1) 216 (2) 105  
(3) 178 (4) 324  
(5) None of these

**Directions (100-104):** In each question below, a number series is given in which one number is **wrong**. Find out the **wrong** number.

**(Allahabad Bank PO Exam. 21.02.2010)**

- 100.** 484 240 120 57 26.5 11.25 3.625  
(1) 240 (2) 120  
(3) 57 (4) 26.5  
(5) 11.25
- 101.** 3 5 13 43 176 891 5352  
(1) 5 (2) 13  
(3) 43 (4) 176  
(5) 891
- 102.** 6 7 16 41 90 154 292  
(1) 7 (2) 16  
(3) 41 (4) 90  
(5) 154
- 103.** 5 7 16 57 244 1245 7506  
(1) 7 (2) 16  
(3) 57 (4) 244  
(5) 1245
- 104.** 4 2.5 3.5 6.5 15.5 41.25 126.75  
(1) 2.5 (2) 3.5  
(3) 6.5 (4) 15.5  
(5) 41.25

**Directions (105-109):** What should come in place of the question mark (?) in the following number series.

**(Corporation Bank PO  
Exam. 09.05.2010)**

- 105.** 325 314 292 259 215 ?  
(1) 126 (2) 116  
(3) 130 (4) 160  
(5) None of these
- 106.** 45 46 70 141 ? 1061.5  
(1) 353 (2) 353.5  
(3) 352.5 (4) 352  
(5) None of these

- 107.** 620 632 608 644 596 ?  
 (1) 536 (2) 556  
 (3) 656 (4) 646  
 (5) None of these

- 108.** 15 25 40 65 ? 195  
 (1) 115 (2) 90  
 (3) 105 (4) 120  
 (5) None of these

- 109.** 120 320 ? 2070 5195 13007.5  
 (1) 800 (2) 920  
 (3) 850 (4) 900  
 (5) None of these

**Directions (110-114):** In the following number series only one number is **wrong**. Find out the wrong number.

**(Punjab & Sind Bank PO Exam. 16.05.2010)**

- 110.** 32 34 37 46 62 87 123  
 (1) 34 (2) 37  
 (3) 62 (4) 87  
 (5) 46

- 111.** 7 18 40 106 183 282 403  
 (1) 18 (2) 282  
 (3) 40 (4) 106  
 (5) 183

- 112.** 850 843 829 808 788 745 703  
 (1) 843 (2) 829  
 (3) 808 (4) 788  
 (5) 745

- 113.** 33 321 465 537 573 590 600  
 (1) 321 (2) 465  
 (3) 573 (4) 537  
 (5) 590

- 114.** 37 47 52 67 87 112 142  
 (1) 47 (2) 52  
 (3) 67 (4) 87  
 (5) 112

**Directions (115-119):** What will come in place of the question mark (?) in the following number series ?

**(Bank Of Baroda PO Exam. 30.05.2010)**

- 115.** 13 16 22 33 51 (?)  
 (1) 89 (2) 78  
 (3) 102 (4) 69  
 (5) None of these

- 116.** 39 52 78 117 169 (?)  
 (1) 246 (2) 182  
 (3) 234 (4) 256  
 (5) None of these

- 117.** 62 87 187 412 812 (?)  
 (1) 1012 (2) 1437  
 (3) 1337 (4) 1457  
 (5) None of these

- 118.** 7 8 24 105 361 (?)  
 (1) 986 (2) 617

- (3) 486 (4) 1657  
 (5) None of these

- 119.** 656 432 320 264 236 (?)  
 (1) 222 (2) 229  
 (3) 232 (4) 223  
 (5) None of these

**Directions (120-124):** What will come in place of the question mark (?) in the following number series ?

**(Central Bank Of India PO Exam. 25.07.2010)**

- 120.** 7 20 46 98 202 (?)  
 (1) 420 (2) 410  
 (3) 310 (4) 320  
 (5) None of these

- 121.** 210 209 213 186 202 (?)  
 (1) 138 (2) 77  
 (3) 177 (4) 327  
 (5) None of these

- 122.** 27 38 71 126 203 (?)  
 (1) 212 (2) 202  
 (3) 301 (4) 312  
 (5) None of these

- 123.** 435 354 282 219 165 (?)  
 (1) 103 (2) 112  
 (3) 120 (4) 130  
 (5) None of these

- 124.** 4 200 369 513 634 (?)  
 (1) 788 (2) 715  
 (3) 734 (4) 755  
 (5) None of these

**Directions (125-129):** What will come in place of the question mark (?) in the following number series ?

**(Syndicate Bank PO Exam. 29.08.2010)**

- 125.** 495 485 465 425 345 ?  
 (1) 195 (2) 165  
 (3) 185 (4) 175  
 (5) None of these

- 126.** 16 22 33 49 70 ?  
 (1) 95 (2) 96  
 (3) 85 (4) 91  
 (5) None of these

- 127.** 32 36 52 88 152 ?  
 (1) 266 (2) 232  
 (3) 242 (4) 256  
 (5) None of these

- 128.** 17 289 425 493 527 ?  
 (1) 534 (2) 542  
 (3) 544 (4) 594  
 (5) None of these

- 129.** 13 27 55 97 153 ?  
 (1) 243 (2) 265  
 (3) 215 (4) 223  
 (5) None of these

**Directions (130-134) :** What should come in place of the question mark (?) in the following number series ?

**(Punjab National Bank Specialist Officer Exam. 24.10.2010)**

- 130.** 50 60 75 97.5 ? 184.275 267.19875  
 (1) 120.50 (2) 130.50  
 (3) 131.625 (4) 124.25  
 (5) None of these
- 131.** 12 15 36 ? 480 2415 14508  
 (1) 115 (2) 109  
 (3) 117 (4) 121  
 (5) None of these
- 132.** 1 2 6 21 88 445 ?  
 (1) 2230 (2) 2676  
 (3) 2580 (4) 2670  
 (5) None of these
- 133.** 20 21 25 34 50 ? 111  
 (1) 70 (2) 65  
 (3) 60 (4) 75  
 (5) None of these
- 134.** 600 125 30 ? 7.2 6.44 6.288  
 (1) 6 (2) 10  
 (3) 15 (4) 12  
 (5) None of these

**Directions (135-139):** What will come in the place of the question mark (?) in the following number series ?

**(Bank Of India PO Exam. 31.10.2010)**

- 135.** 11 15 31 67 131 (?)  
 (1) 233 (2) 221  
 (3) 243 (4) 231  
 (5) None of these
- 136.** 483 471 435 375 291 (?)  
 (1) 183 (2) 184  
 (3) 185 (4) 186  
 (5) None of these
- 137.** 5 7 13 25 45 (?)  
 (1) 67 (2) 75  
 (3) 65 (4) 55  
 (5) None of these
- 138.** 4 11 25 53 109 (?)  
 (1) 221 (2) 234  
 (3) 212 (4) 222  
 (5) None of these
- 139.** 15 21 33 51 75 (?)  
 (1) 113 (2) 103  
 (3) 105 (4) 115  
 (5) None of these

**Directions (140-144):** In the following number series only one number is **wrong**. Find out the **wrong** number.

**(United Bank Of India PO Exam. 14.11.2010)**

- 140.** 5 348 564 689 716 780 788

- (1) 716 (2) 788  
 (3) 348 (4) 689  
 (5) 780

- 141.** 4444 2224 1114 73.375 556 281.5 142.75

- (1) 2224 (2) 281.5  
 (3) 1114 (4) 556  
 (5) 142.75

- 142.** 4.5 16 25 33 38.5 42 43.5

- (1) 33 (2) 38.5  
 (3) 42 (4) 43.5  
 (5) 25

- 143.** 6 49 305 1545 6196 18603 37218

- (1) 6196 (2) 49  
 (3) 305 (4) 1545  
 (5) 18603

- 144.** 8 5 6.5 11 26 68 207.5

- (1) 68 (2) 6.5  
 (3) 11 (4) 26  
 (5) 207.5

**Directions (145-149) :** What should come in place of the question mark (?) in the following number series ?

**(PNB Management Trainee Exam. 28.11.2010)**

- 145.** 586 587 586 581 570 ? 522  
 (1) 545 (2) 543  
 (3) 551 (4) 557  
 (5) None of these

- 146.** 64 54 69 49 74 44 ?

- (1) 89 (2) 69  
 (3) 59 (4) 99  
 (5) None of these

- 147.** 4000 2008 1012 ? 265 140.5 78.25

- (1) 506 (2) 514  
 (3) 520 (4) 512  
 (5) None of these

- 148.** 5 5 15 75 ? 4725 51975

- (1) 520 (2) 450  
 (3) 525 (4) 300  
 (5) None of these

- 149.** 52 26 26 39 78 ? 585

- (1) 195 (2) 156  
 (3) 234 (4) 117  
 (5) None of these

**Directions (150-154) .-**What will come in place of question mark (?) in the following number series ?

**(Bank Of Maharashtra Exam. 19.12.2010)**

- 150.** 10 14 25 55 140 (?)

- (1) 386 (2) 398  
 (3) 388 (4) 396  
 (5) None of these

- 151.** 119 131 155 191 239 (?)

- (1) 289 (2) 290  
 (3) 279 (4) 280  
 (5) None of these
- 152.** 11 57 149 333 701 (?)  
 (1) 1447 (2) 1347  
 (3) 1368 (4) 1437  
 (5) None of these
- 153.** 697 553 453 389 353 (?)  
 (1) 328 (2) 337  
 (3) 362 (4) 338  
 (5) None of these
- 154.** 336 224 168 140 126 (?)  
 (1) 119 (2) 118  
 (3) 116 (4) 121  
 (5) None of these

**Directions (155-159):** What will come in place of the question mark (?) in the following number series ?

**(Oriental Bank Of Commerce PO  
 Exam. 26.12.2010 (1st Sitting))**

- 155.** 9 15 27 51 99 ?  
 (1) 165 (2) 195  
 (3) 180 (4) 190  
 (5) None of these
- 156.** 13 21 36 58 87 ?  
 (1) 122 (2) 128  
 (3) 133 (4) 123  
 (5) None of these
- 157.** 7 9 19 45 95 ?  
 (1) 150 (2) 160  
 (3) 145 (4) 177  
 (5) None of these
- 158.** 14 15 23 32 96 ?  
 (1) 121 (2) 124  
 (3) 152 (4) 111  
 (5) None of these
- 159.** 20 24 36 56 84 ?  
 (1) 116 (2) 124  
 (3) 120 (4) 128  
 (5) None of these

**Directions (160-164):** What should come in place of the question mark (?) in the following number series ?

**(Indian Bank PO Exam. 02.01.2011)**

- 160.** 3 732 1244 1587 1803 1928 ?  
 (1) 2144 (2) 1992  
 (3) 1955 (4) 2053  
 (5) None of these
- 161.** 16 24 ? 210 945 5197.5 33783.75  
 (1) 40 (2) 36  
 (3) 58 (4) 60  
 (5) None of these
- 162.** 45030 9000 1795 355 68 ? 1.32  
 (1) 11.6 (2) 12.2  
 (3) 10.4 (4) 9.8

(5) None of these

- 163.** 5 12 36 123 ? 2555 15342  
 (1) 508 (2) 381  
 (3) 504 (4) 635  
 (5) None of these
- 164.** 8 11 17 ? 65 165.5 498.5  
 (1) 27.5 (2) 32  
 (3) 28 (4) 30.5  
 (5) None of these

**Directions (165-169):** What will come in place of the question mark (?) in the following number series ?

**(Union Bank Of India PO  
 Exam. 09.01.2001)**

- 165.** 117 389 525 593 627 (?)  
 (1) 654 (2) 640  
 (3) 634 (4) 630  
 (5) None of these
- 166.** 7 11 23 51 103 (?)  
 (1) 186 (2) 188  
 (3) 185 (4) 187  
 (5) None of these
- 167.** 18 27 49 84 132 (?)  
 (1) 190 (2) 183  
 (3) 180 (4) 193  
 (5) None of these
- 168.** 33 43 65 99 145 (?)  
 (1) 201 (2) 203  
 (3) 205 (4) 211  
 (5) None of these
- 169.** 655 439 314 250 223 (?)  
 (1) 205 (2) 210  
 (3) 195 (4) 190  
 (5) None of these

**Directions (170-174):** What will come in place of the question mark (?) in the following number series ?

**(Corporation Bank PO  
 Exam. 16.01.2011)**

- 170.** 15 21 39 77 143 (?)  
 (1) 243 (2) 240  
 (3) 253 (4) 245  
 (5) None of these
- 171.** 33 39 57 87 129 (?)  
 (1) 183 (2) 177  
 (3) 189 (4) 199  
 (5) None of these
- 172.** 15 19 83 119 631 (?)  
 (1) 731 (2) 693  
 (3) 712 (4) 683  
 (5) None of these
- 173.** 19 26 40 68 124 (?)  
 (1) 246 (2) 238  
 (3) 236 (4) 256  
 (5) None of these



174. 43 69 58 84 73 (?)  
 (1) 62 (2) 98  
 (3) 109 (4) 63  
 (5) None of these

**Directions (175-179):** What should come in place of the question mark (?) in the following number series ?

**(Punjab & Sind Bank PO Exam. 23.01.2011)**

175. 15 18 16 19 17 20 ?  
 (1) 23 (2) 22  
 (3) 16 (4) 18  
 (5) None of these
176. 1050 420 168 67.2 26.88 10.752 ?  
 (1) 4.3008 (2) 6.5038  
 (3) 4.4015 (4) 5.6002  
 (5) None of these
177. 0 6 24 60 120 210 ?  
 (1) 343 (2) 280  
 (3) 335 (4) 295  
 (5) None of these
178. 32 49 83 151 287 559 ?  
 (1) 1118 (2) 979  
 (3) 1103 (4) 1120  
 (5) None of these
179. 462 552 650 756 870 992 ?  
 (1) 1040 (2) 1122  
 (3) 1132 (4) 1050  
 (5) None of these

**Directions (180-184):** What will come in place of the question mark (?) in the following number series ?

**(UCO Bank PO Exam. 30.01.2011)**

180. 28 39 63 102 158 (?)  
 (1) 232 (2) 242  
 (3) 233 (4) 244  
 (5) None of these
181. 7 16 141 190 919 (?)  
 (1) 1029 (2) 1019  
 (3) 1020 (4) 1030  
 (5) None of these
182. 12 17 32 57 92 (?)  
 (1) 198 (2) 195  
 (3) 137 (4) 205  
 (5) None of these
183. 19 25 45 87 159 (?)  
 (1) 254 (2) 279  
 (3) 284 (4) 269  
 (5) None of these
184. 83 124 206 370 698 (?)  
 (1) 1344 (2) 1324  
 (3) 1364 (4) 1334  
 (5) None of these

**Directions (185-189):** What will come in place of the question mark (?) in the following number series.

**(Bank Of Baroda PO Exam.13.03.2011)**

185. 1 7 49 343 (?)  
 (1) 16807 (2) 1227  
 (3) 2058 (4) 2401  
 (5) None of these
186. 13 20 39 78 145 (?)  
 (1) 234 (2) 244  
 (3) 236 (4) 248  
 (5) None of these
187. 12 35 81 173 357 (?)  
 (1) 725 (2) 715  
 (3) 726 (4) 736  
 (5) None of these
188. 3 100 297 594 991 (?)  
 (1) 1489 (2) 1479  
 (3) 1478 (4) 1498  
 (5) None of these
189. 112 119 140 175 224 (?)  
 (1) 277 (2) 276  
 (3) 287 (4) 266  
 (5) None of these

**Directions (190-194):** What will come in place of the question mark (?) in the following number series ?

**(Allahabad Bank PO Exam.17.04.2011)**

190. 958 833 733 658 608 (?)  
 (1) 577 (2) 583  
 (3) 567 (4) 573  
 (5) None of these
191. 11 10 18 51 200 (?)  
 (1) 885 (2) 1025  
 (3) 865 (4) 995  
 (5) None of these
192. 25 48 94 186 370 (?)  
 (1) 738 (2) 744  
 (3) 746 (4) 724  
 (5) None of these
193. 14 24 43 71 108 (?)  
 (1) 194 (2) 154  
 (3) 145 (4) 155  
 (5) None of these
194. 144 173 140 169 136 (?)  
 (1) 157 (2) 148  
 (3) 164 (4) 132  
 (5) None of these

**Directions (195-199):** What will come in place of the question mark (?) in the following number series ?

**(Indian Overseas Bank PO Exam. 22.05.2011)**

195. 8 10 18 44 124 (?)  
 (1) 344 (2) 366

- (3) 354 (4) 356  
(5) None of these
- 196.** 13 25 61 121 205 (?)  
(1) 323 (2) 326  
(3) 324 (4) 313  
(5) None of these
- 197.** 656 352 200 124 86 (?)  
(1) 67 (2) 59  
(3) 62 (4) 57  
(5) None of these
- 198.** 454 472 445 463 436 (?)  
(1) 436 (2) 456  
(3) 454 (4) 434  
(5) None of these
- 199.** 12 18 36 102 360 (?)  
(1) 1364 (2) 1386  
(3) 1384 (4) 1376  
(5) None of these

**Directions (200-204):** In the following number series only one number is **wrong**. Find out the wrong number.

**(IBPS Bank PO/MT CWE  
Exam. 18.09.2011)**

- 200.** 7 12 40 222 1742 17390 208608  
(1) 222 (2) 12  
(3) 40 (4) 1742  
(5) 208608
- 201.** 6 91 584 2935 11756 35277  
70558  
(1) 6 (2) 70558  
(3) 584 (4) 2935  
(5) 35277
- 202.** 9050 5675 3478 2147 1418 1077  
950  
(1) 950 (2) 1418  
(3) 5675 (4) 2147  
(5) 1077
- 203.** 1 4 25 256 3125 46656  
823543  
(1) 4 (2) 823543  
(3) 46656 (4) 25  
(5) 256
- 204.** 8424 4212 2106 1051 526.5 263.25  
131.625  
(1) 526.5 (2) 1051  
(3) 4212 (4) 8424  
(5) 263.25

**Directions (205-209):** In each of these questions a number series is given. In each series **only one** number is wrong. Find out the **wrong** number.

**(IBPS Bank PO/MT CWE 17.06.2012)**

- 205.** 5531 5506 5425 5304 5135 4910  
4621  
(1) 5531 (2) 5425

- (3) 4621 (4) 5135  
(5) 5506

- 206.** 6 7 9 13 26 37 69  
(1) 7 (2) 26  
(3) 69 (4) 37  
(5) 9
- 207.** 1 3 10 36 152 760 4632  
(1) 3 (2) 36  
(3) 4632 (4) 760  
(5) 152
- 208.** 4 5 13 40 105 229 445  
(1) 4 (2) 13  
(3) 105 (4) 445  
(5) 229
- 209.** 157.5 45 15 6 3 2 1  
(1) 1 (2) 2  
(3) 6 (4) 157.5  
(5) 45

**Directions (210-215):** What will come in place of the question mark (?) in the following number series?

**(IDBI Bank Officer Exam. 16.09.2012)**

- 210.** 123 277 459 669 907 ?  
(1) 1179 (2) 1173  
(3) 1167 (4) 1169  
(5) None of these
- 211.** 456.5 407 368.5 341 324.5 ?  
(1) 321 (2) 319  
(3) 317 (4) 323  
(5) None of these
- 212.** 23 42.2 80.6 157.4 311 ?  
(1) 618.2 (2) 623.2  
(3) 624.2 (4) 616.6  
(5) None of these
- 213.** 36 154 232 278 300 ?  
(1) 304 (2) 313  
(3) 308 (4) 307  
(5) None of these
- 214.** 24 536 487 703 678 ?  
(1) 768 (2) 748  
(3) 764 (4) 742  
(5) None of these
- 215.** 224 576 752 840 884 ?  
(1) 960 (2) 890  
(3) 906 (4) 908  
(5) None of these

**Directions (216-220):** What should come in place of the question mark (?) in the following series?

**(IBPS RRBs Office Assistant CWE  
Exam. 09.09.2012)**

- 216.** 5 6 16 57 ? 1245  
(1) 244 (2) 148  
(3) 296 (4) 271  
(5) None of these
- 217.** 12 ? 168 504 1260 2520

- (1) 96 (2) 59  
(3) 61 (4) 48  
(5) None of these
- 218.** 4 9 29 ? 599 3599  
(1) 117 (2) 347  
(3) 258 (4) 174  
(5) None of these
- 219.** 177 170 159 146 ? 110  
(1) 132 (2) 106  
(3) 129 (4) 127  
(5) None of these
- 220.** 2 3 11 38 102 ?  
(1) 402 (2) 182  
(3) 227 (4) 168  
(5) None of these

**Directions (221-225):** What will come in place of the question mark (?) in the following number series ?

**(Indian Overseas Bank PO  
Online Exam. 01.09.2013)**

- 221.** 21 10.5 ? 15.75 31.5 78.75  
(1) 10.5 (2) 11.5  
(3) 12.5 (4) 10.25  
(5) None of these
- 222.** 6 19 58 ? 214 331  
(1) 113 (2) 123  
(3) 133 (4) 143  
(5) None of these
- 223.** ? 16 28 58 114 204  
(1) 7 (2) 9  
(3) 14 (4) 6  
(5) 10
- 224.** 13. 76 14.91 17.21 20.66 ? 31.01  
(1) 25.66 (2) 24.36  
(3) 24.26 (4) 25.26  
(5) 25.36
- 225.** 15 ? 24 33 97 122  
(1) 20 (2) 19  
(3) 17 (4) 18  
(5) 16

**Directions (226-230):** In each of the following number series, a number is **wrong**. Find out that wrong number.

**(Corporation Bank Specialist Officer  
Marketing Exam 22.12.2014)**

- 226.** 2 6 15 30 45 43.5 22.5  
(1) 6 (2) 30  
(3) 45 (4) 15  
(5) 43.5
- 227.** 950 661 436 269 146 65 16  
(1) 436 (2) 65  
(3) 269 (4) 661  
(5) 146
- 228.** 6.5 11.8 22.4 38.3 59.5 87.3  
117.8

- (1) 22.4 (2) 59.5  
(3) 11.8 (4) 38.3  
(5) 87.3

- 229.** 1 2 4 9 23 69 186  
(1) 2 (2) 9  
(3) 23 (4) 4  
(5) 69

- 230.** 250 239 216 181 136 75 4  
(1) 239 (2) 181  
(3) 75 (4) 216  
(5) 136

**SBI PO EXAMS**

**Directions (1-5):** One number is wrong in each of the number series given in each of the following questions. You have to identify that number and assuming that a new series starts with that number following the same logic as in the given series, which of the numbers given in (1), (2), (3), (4) and (5) given below each series will be the **third** number in the new series ?

**(SBI Associate Banks PO  
Exam. 14.02.1999)**

- 1.** 3 5 12 38 154 914 4634  
(1) 1636 (2) 1222  
(3) 1834 (4) 3312  
(5) 1488
- 2.** 3 4 10 34 136 685 4116  
(1) 22 (2) 276  
(3) 72 (4) 1374  
(5) 12
- 3.** 214 18 162 62 143 90 106  
(1) 34 (2) 110  
(3) 10 (4) 91  
(5) 38
- 4.** 160 80 120 180 1050 4725  
25987.5  
(1) 60 (2) 90  
(3) 3564 (4) 787.5  
(5) 135
- 5.** 2 3 7 13 25 47 78  
(1) 11 (2) 13  
(3) 15 (4) 18  
(5) 20

**Directions (6-8):** In each of the following questions, a number **series** is given. After the series, below it, a number alongwith (a), (b), (c), (d) and (e) is given. You have to complete the series following the same sequence as that of the given series. Then answer the question that follows.

**(SBI Associate Banks PO  
Exam. 16.07.2000)**

- 6.** 2 3 10 29 172 885  
1 (a) (b) (c) (d) (e)  
What will come in place of (b) ?

- (1) 11 (2) 7  
 (3) 9 (4) 8  
 (5) None of these

7. 5 7 10 36 136 690  
 2 (a) (b) (c) (d) (e)  
 What will come in place of (e) ?  
 (1) 310 (2) 330  
 (3) 110 (4) 64  
 (5) None of these

8. 8 4 6 15 52.5 236.25  
 4 (a) (b) (c) (d) (e)  
 Which of the following will come in place of (d) ?  
 (1) 36.25 (2) 33.25  
 (3) 26.75 (4) 32.75  
 (5) None of these

**Directions (9-10) :** In each of the following questions, a number series is established if the positions of two out of the five marked numbers are interchanged. The position of the first unmarked number remains the same and it is the beginning of the series. The earlier of the two marked numbers whose positions are interchanged is the answer. For example, if an interchange of number marked '1' and the number marked '4' is required to establish the series, your answer is T. If it is not necessary to interchange the position of the numbers to establish the series, give 5 as your answer. Remember that when the series is established, the numbers change from left to right (i.e. from the unmarked number to the last marked number) in a specific order.

**(SBI Banks PO Exam. 20.08.2000)**

9. 40 14 60 24 80 19  
 (1) (2) (3) (4) (5)  
 10. 120 15 105 21.875 87.5 17.5  
 (1) (2) (3) (4) (5)

**Directions (11-15) :** In each of the following number-series only one number is **wrong**. If the wrong number is corrected, the series gets established following a certain logic. Below the series a number is given followed by (a), (b), (c), (d), (e) and (f). You have to complete the series following the same logic as in the given series after correcting the **wrong** number, now answer the following questions giving the correct values for the letter in the questions.

**(SBI Banks PO Exam. 11.02.2001)**

11. 2 3 2 15 76 254 1434  
 3 (a) (b) (c) (d) (e) (f)  
 What will come in place of (c) ?  
 (1) 18 (2) 22  
 (3) 24 (4) 21  
 (5) None of these  
 12. 1 2 8 33 148 740 4626

- 2 (a) (b) (c) (d) (e) (f)  
 What will come in place of (d) ?  
 (1) 156 (2) 164  
 (3) 168 (4) 152  
 (5) None of these

13. 2 4.5 11 30 93 312 1136  
 1 (a) (b) (c) (d) (e) (i)  
 What will come in place of (b) ?  
 (1) 6 (2) 81  
 (3) 16.75 (4) 18.75  
 (5) None of these

14. 2 14 18 46 82 176 338  
 4 (a) (b) (c) (d) (e) (i)  
 What will come in place of (e) ?  
 (1) 238 (2) 338  
 (3) 218 (4) 318  
 (5) None of these

15. 1 3 7 11 21 43 85  
 4 (a) (b) (c) (d) (e) (f)  
 What will come in place of (f) ?  
 (1) 275 (2) 279  
 (3) 277 (4) 273  
 (5) None of these

**Directions (16-20) :** Find out the wrong number in the following given sequence.

**(SBI Associate Banks PO Exam. 21.07.2002)**

16. 7 4 6 9 20 52.5 160.5  
 (1) 6 (2) 4  
 (3) 20 (4) 9  
 (5) 52.5  
 17. 4 6 12 30 75 315 1260  
 (1) 315 (2) 75  
 (3) 12 (4) 6  
 (5) 30  
 18. 3 4 13 38 87 166 289  
 (1) 38 (2) 13  
 (3) 87 (4) 166  
 (5) 4  
 19. 4 5 9 29 111 556 3325  
 (1) 5 (2) 9  
 (3) 29 (4) 111  
 (5) 556  
 20. 2 6 16 38 84 176 368  
 (1) 6 (2) 16  
 (3) 38 (4) 84  
 (5) 176

**Directions (21-26):** In each of the following number series, a **wrong** number is given. Find out the **wrong** number.

**(SBI Banks PO Exam. 18.05.2003)**

21. 2 3 6 18 109 194 209952  
 (1) 3 (2) 6  
 (3) 18 (4) 109  
 (5) 1944

22. 1 3 6 11 20 39 70 LEARN

- (1) 3 (2) 39  
 (3) 11 (4) 20  
 (5) 6

23. 2 13 27 113 561 3369 23581

- (1) 13 (2) 27  
 (3) 113 (4) 561  
 (5) 3369

24. 50 51 47 56 42 65 29

- (1) 51 (2) 47  
 (3) 56 (4) 42  
 (5) 65

25. 3 9 23 99 479 2881 20159

- (1) 9 (2) 23  
 (3) 99 (4) 479  
 (5) 2881

26. 2 4 5 8 13 21 34

- (1) 4 (2) 5  
 (3) 8 (4) 13  
 (5) 21

**Directions (27-31) :** In each of the following questions a number series is given. After the **series** a number is given followed by (a), (b), (c), (d) and (e). You have to complete the series starting with the given number, following the sequence of original series and answer the questions that follow the series.

**(SBI PO Exam. 09.01.2005)**

27. 3 19 103 439 1381 2887

- 5 (a) (b) (c) (d) (e)

What will come in place of (b) ?

- (1) 139 (2) 163  
 (3) 161 (4) 157  
 (5) None of these

28. 4 13 40 135 552 2765

- 2 (a) (b) (c) (d) (e)

What will come in place of (c) ?

- (1) 123 (2) 133  
 (3) 127 (4) 131  
 (5) None of these

29. 5 12 4 10 3 8

- 6 (a) (b) (c) (d) (e)

What will come in place of (d) ?

- (1) 3 (2) 5  
 (3) 4 (4) 7  
 (5) None of these

30. 3 13 37 87 191 401

- 1 (a) (b) (c) (d) (e)

What will come in place of (d) ?

- (1) 169 (2) 161  
 (3) 171 (4) 159  
 (5) None of these

31. 8 4 6 15 52.5 236.25

- 12 (a) (b) (c) (d) (e)

What will come in place of (c) ?

- (1) 18.25 (2) 19

- (3) 22.5 (4) 20.75

- (5) None of these

**Directions (32-36):** In each of the following questions a number series is given. After the **series**, a number is given followed by (a), (b), (c), (d) and (e). You have to complete the series starting with the number given following the sequence of the given series. Then answer the question given below it.

**(SBI PO Exam. 26.11.2006)**

32. 9 19.5 41 84.5

- 12 (a) (b) (c) (d) (e)

Which of the following numbers will come in place of (c) ?

- (1) 111.5 (2) 118.5  
 (3) 108.25 (4) 106.75  
 (5) None of these

33. 4 5 22 201

- 7 (a) (b) (c) (d) (e)

Which of the following number will come in place of (d) ?

- (1) 4948 (2) 4840  
 (3) 4048 (4) 4984  
 (5) None of these

34. 5 5.25 11.5 36.75

- (a) (b) (c) (d) (e)

Which of the following number will come in place of (c) ?

- (1) 34.75 (2) 24.75  
 (3) 24.5 (4) 34.5  
 (5) None of these

35. 38 19 28.5 71.25

- 18 (a) (b) (c) (d) (e)

Which of the following number will come in place of (d) ?

- (1) 118.75 (2) 118.25  
 (3) 108.25 (4) 118.125  
 (5) None of these

36. 25 146 65 114

- 39 (a) (b) (c) (d) (e)

Which of the following number will come in place of (e) ?

- (1) 122 (2) 119  
 (3) 112 (4) 94  
 (5) None of these

**Directions (37-41) :** In each of these questions a number series is given. Only one number is **wrong** in each series. You have to find out the **wrong** number.

**(SBI Associate Banks PO**

**Exam. 07,01.2007)**

37. 10 15 24 35 54 75 100

- (1) 35 (2) 75  
 (3) 24 (4) 15  
 (5) 54

38. 1 3 4 7 11 18 27 47  
 (1) 4 (2) 11  
 (3) 18 (4) 7  
 (5) 27

39. 3 2 3 6 12 37.5 115.5  
 (1) 37.5 (2) 3  
 (3) 6 (4) 2  
 (5) 12

40. 2 8 32 148 765 4626 32431  
 (1) 765 (2) 148  
 (3) 8 (4) 32  
 (5) 4626

41. 2 3 11 38 102 229 443  
 (1) 11 (2) 229  
 (3) 102 (4) 38  
 (5) 3

**Directions (42-46):** What should come in place of the question mark(?) in the following number series ?

**(SBI PO Preliminary (Tire-I)**

**Exam. 27.04.2008)**

42. 7413 7422 7440 ? 7503 7548  
 (1) 7464 (2) 7456  
 (3) 7466 (4) 7477  
 (5) None of these

43. 4 16 36 64 100 ?  
 (1) 120 (2) 180  
 (3) 136 (4) 144  
 (5) None of these

44. 12 33 96 ? 852 2553  
 (1) 285 (2) 288  
 (3) 250 (4) 384  
 (5) None of these

45. 70000 14000 2800 ? 112 22.4  
 (1) 640 (2) 420  
 (3) 560 (4) 540  
 (5) None of these

46. 102 99 104 97 106 ?  
 (1) 96 (2) 95  
 (3) 100 (4) 94  
 (5) None of these

**Directions (47-51):** What will come in place of the question mark (?) in the following number series which has only one number wrong by a margin of + 1 or - 1? The first and last number in the series are correct ?

**(SBI PO Preliminary (Tire-I)**

**Exam. 27.07.2008)**

47. 93 95 99 ? 110 121 134  
 (1) 104 (2) 96  
 (3) 82 (4) 103  
 (5) None of these

48. 8 12 18 26 40.5 60.75 136.6875  
 (1) 104.125 (2) 121.125  
 (3) 96.125 (4) 83.125

(5) None of these

49. 4 7 11 18 28 ? 76 12  
 (1) 59 (2) 38  
 (3) 46 (4) 53  
 (5) None of these

50. 3 10 ? 172 886 5346 3747  
 299832  
 (1) 39 (2) 27  
 (3) 24 (4) 34  
 (5) None of these

51. 15 22 57 183 ? 748 3751 22542  
 (1) 709 (2) 698  
 (3) 748 (4) 800  
 (5) None of these

**Directions (52-56):** In each of these questions a number series is given. In each series **only one** number is **wrong**. Find out the **wrong** number.

**(SBI Associate Banks PO**

**Exam. 07.08.2011)**

52. 3601 3602 1803 604 154 36 12  
 (1) 3602 (2) 1803  
 (3) 604 (4) 154  
 (5) 36

53. 4 12 42 196 1005 6066 42511  
 (1) 12 (2) 42  
 (3) 1005 (4) 196  
 (5) 6066

54. 2 8 12 20 30 42 56  
 (1) 8 (2) 42  
 (3) 30 (4) 20  
 (5) 12

55. 32 16 24 65 210 945 5197.5  
 (1) 945 (2) 16  
 (3) 24 (4) 210  
 (5) 65

56. 7 13 25 49 97 194 385  
 (1) 13 (2) 49  
 (3) 97 (4) 194  
 (5) 25

**Directions (57-61):** In each of the following questions, a number series is given. After the series a number is given followed by (a), (b), (c), (d) and (e). You have to complete the series starting with the number given, following the sequence of the original series and answer the questions that follow the series.

**(SBI Management Executive**

**Exam. 23.02.2014)**

57. 37 19 20 31.5 65 165  
 21 (a) (b) (c) (d) (e)  
 What will come in the place of (e) ?  
 (1) 105 (2) 41  
 (3) 110 (4) 108  
 (5) 116

58. 5 6 16 57 244 1245  
9 (a) (b) (c) (d) (e)  
What will come in the place of (d) ?  
(1) 366 (2) 364  
(3) 368 (4) 378  
(5) 382
59. 7 5 11 49 335 3005  
13 (a) (b) (c) (d) (e)  
What will come in the place of (b) ?  
(1) 31 (2) 27  
(3) 29 (4) 28  
(5) 30
60. 12 47 152 467 1412 4247  
33 (a) (b) (c) (d) (e)  
What will come in the place of (d) ?  
(1) 3131 (2) 1133  
(3) 3311 (4) 3113  
(5) 3123
61. 54 50 84 188 496 1456  
42 (a) (b) (c) (d) (e)  
What will come the in the place of (d) ?  
(1) 304 (2) 286  
(3) 293 (4) 281  
(5) 301

### RBI GRADE-B OFFICER EXAMS

**Directions (1-5) :** In each of the following questions a number series is given. After the series a number is given followed by (a), (b) (c), (d) and (e). You have to complete the series starting with the number given, following the sequence of the original series and answer the questions that follow the series.

#### (RBI Grade-B Officer Exam. 17.11.2002)

1. 5 6 16 57 244 1245  
2 (a) (b) (c) (d) (e)  
What will come in place of (d) ?  
(1) 46 (2) 39  
(3) 156 (4) 172  
(5) None of these
2. 3 5 9 17 33 65  
7 (a) (b) (c) (d) (e)  
What will come in place of (d)  
(1) 95 (2) 51  
(3) 99 (4) 49  
(5) None of these
3. 7 4 5 9 20 52.5  
3 (a) (b) (c) (d) (e)  
What will come in place of (c) ?  
(1) 4.5 (2) 2  
(3) 6 (4) 7  
(5) None of these
4. 3 10 32 111 460 2315  
2 (a) (b) (c) (d) (e)  
What will come in place of (b) ?

- (1) 29 (2) 30  
(3) 26 (4) 28  
(5) None of these

5. 5 8 6 10 7 12  
7 (a) (b) (c) (d) (e)  
What will come in place of (c) ?  
(1) 14 (2) 16  
(3) 9 (4) 11  
(5) None of these

**Directions (6-10) :** What should come in place of the question mark (?) in the following number series ?

#### (RBI Grade-B Officer Exam. 2007)

6. 104 109 99 114 94 9  
(1) 69 (2) 124  
(3) 120 (4) 78  
(5) None of these
7. 980 392 156.8 ? 25.088 10.0352  
(1) 65.04 (2) 60.28  
(3) 62.72 (4) 63.85  
(5) None of these
8. 14 16 35 109 441 ?  
(1) 2651 (2) 2205  
(3) 2315 (4) 2211  
(5) None of these
9. 1331 2197 4913 6859 ? 24389  
(1) 12167 (2) 13824  
(3) 9261 (4) 15625  
(5) None of these
10. 3600 725 150 35 12 ?  
(1) 8 (2) 7.4  
(3) 10.5 (4) 10  
(5) None of these

**Directions (11-15) :** What should come in place of question mark (?) in the following number series ?

#### (RBI Grade-B Officer Exam. 2008)

11. 13 14 30 93 376 1885 ?  
(1) 10818 (2) 10316  
(3) 11316 (4) 11318  
(5) None of these
12. 4 6 9 13.5 20.25 30.375  
(1) 40.25 (2) 45.5625  
(3) 42.7525 (4) 48.5625  
(5) None of these
13. 400 240 144 86.4 51.84 31.104 ?  
(1) 19.2466 (2) 17.2244  
(3) 16.8824 (4) 18.6625  
(5) None of these
14. 9 4.5 4.5 6.75 13.5 33.75 ?  
(1) 101.25 (2) 103.75  
(3) 99.75 (4) 105.50  
(5) None of these
15. 705 728 774 843 935 1050 ?

- (1) 1190 (2) 1180  
 (3) 1185 (4) 1187  
 (5) None of these

**Directions (16-20) :** In each of these questions a number series is given. Below the series one number is given followed by (a), (b), (c), (d) and (e) You have to complete this series following the same logic as in the original series and answer the question that follows.

**(RBI Grade-B Officer Exam.11.10.2009)**

16. 5 9 25 91 414 2282 5  
 3 (a) (b) (c) (d) (e)  
 What will come in place of (c) ?  
 (1) 63.25 (2) 63.75  
 (3) 64.25 (4) 64.75  
 (5) None of these

17. 15 9 8 12 36 170  
 19 (a) (b) (C) (d) (e)  
 What will come in place of (b) ?  
 (1) 18 (2) 16  
 (3) 22 (4) 24  
 (5) None of these

18. 7 6 10 27 104 515  
 9 (a) (b) (c) (d) (e)  
 What will come in place of (d) ?  
 (1) 152 (2) 156  
 (3) 108 (4) 112  
 (5) None of these

19. 6 16 57 244 1245 7506  
 4 (a) (b) (c) (d) (e)  
 What will come in place of (d) ?  
 (1) 985 (2) 980  
 (3) 1004 (4) 1015  
 (5) None of these

20. 8 9 20 63 256 1285  
 5 (a) (b) (c) (d) (e)  
 What will come in place of (e)  
 (1) 945 (2) 895  
 (3) 925 (4) 845  
 (5) None of these

**Directions (21-25):** In the following number series only one number is **wrong**. Find out the **wrong** number.

**(RBI Grade-B Officer Exam.06.02.2011)**

21. 4 3 4.5 8.5 20 53 162.5  
 (1) 3 (2) 4.5  
 (3) 8.5 (4) 20  
 (5) 53
22. 12000 2395 47289.8 12.96 -  
 2.408 -5.4816  
 (1) -5.4816 (2) 472  
 (3) 12.96 (4) - 2.408  
 (5) 2395
23. 1 8 28 99 412 2075 12460  
 (1) 28 (2) 99

- (3) 412 (4) 2075  
 (5) 12460

24. 144 215 540 1890 8505 46777.5  
 304053.75  
 (1) 215 (2) 540  
 (3) 1890 (4) 8505  
 (5) 46777.5
25. 2222 1879 1663 1538 1474 1447  
 1440  
 (1) 1879 (2) 1538  
 (3) 1474 (4) 1447  
 (5) 1440

**Directions (26 - 30) :** What will come in place of the question mark (?) in the following number series ?

**(RBI Grade 'B' Officer's Exam. 18.12.2011)**

26. 9 31 73 141 (?)  
 (1) 164 (2) 280  
 (3) 239 (4) 241  
 (5) None of these
27. 35 256 451 620 763 (?)  
 (1) 680 (2) 893  
 (3) 633 (4) 880  
 (5) None of these
28. 130 139 155 180 216 (?)  
 (1) 260 (2) 290  
 (3) 265 (4) 996  
 (5) None of these
29. 2890 (?) 1162 874 730 658  
 (1) 1684 (2) 1738  
 (3) 1784 (4) 1672  
 (5) None of these
30. 14 1004 1202 1251.5 1268 (?)  
 (1) 1267.5 (2) 1276.25  
 (3) 1324.5 (4) 1367.25  
 (5) None of these

**Directions (31-35) :** What will come in place of the question mark (?) in the following number series ?

**(RBI Officer Grade 'B' Online Exam. 25.08.2013)**

31. 224 576 752 840 884 ?  
 (1) 960 (2) 890  
 (3) 906 (4) 908  
 (5) None of these
32. 55 66.15 88.45 121.9 166.5 ?  
 (1) 212.25 (2) 322.25  
 (3) 224.25 (4) 222.25  
 (5) None of these
33. 36 49 75 88 114 (?)  
 (1) 130 (2) 140  
 (3) 132 (4) 128  
 (5) 127



**INSURANCE EXAMS**

1. What will come in place of the question mark (?) in the following series ?

3 7 18 26 ? 53 64 96

- (1) 34 (2) 37  
(3) 32 (4) 38

(United India Insurance Co. AAO  
Exam. 21.04.2002)

2. What will come in place of the question mark (?) in the following series ?

1.7 3.2 2.7 4.2 3.7 ? 4.7 6.2

- (1) 6.2 (2) 5.5  
(3) 5.2 (4) 4.3

(United India Insurance Co.  
AAO Exam. 21.04.2002)

**Directions (3-7) :** In each of the following questions, a number series is given. **Only** one number is **wrong** in this series. Find out that **wrong** number, and taking this wrong number as the first term of the second series formed following the same logic, find out the fourth term of the second series.

(LIC Assistant Administrative  
Officer (AAO) Exam. 24.04.2008)

3. 8 4 4 6 12 28 90

- (1) 18 (2) 42  
(3) 21 (4) 24  
(5) None of these

4. 17 17.25 18.25 20.75 24.5 30.75

- (1) 23.25 (2) 24.25  
(3) 24.5 (4) 24.75  
(5) None of these

5. 438 487 447 476 460 469

- (1) 485 (2) 425  
(3) 475 (4) 496  
(5) None of these

6. 2 7 18 45 99 209 431

- (1) 172 (2) 171  
(3) 174 (4) 175  
(5) None of these

7. 6 8 10 42 146 770 4578

- (1) 868 (2) 8872  
(3) 858 (4) 882  
(5) None of these

**Directions (8-12) :** Find out the wrong number in the following given sequence.

(LIC Assistant Administrative  
Officer (AAO) Exam. 2006)

8. 7 4 6 9 20 52.5 160.5

- (1) 6 (2) 4  
(3) 20 (4) 9  
(5) 52.5

9. 4 6 12 30 75 315 1260

- (1) 315 (2) 75  
(3) 12 (4) 6  
(5) 30

10. 3 4 13 38 87 166 289

- (1) 38 (2) 13  
(3) 87 (4) 166  
(5) 4

11. 4 5 9 29 111 556 3325

- (1) 5 (2) 9  
(3) 29 (4) 111  
(5) 556

12. 2 6 16 38 84 176 368

- (1) 6 (2) 16  
(3) 38 (4) 84  
(5) 176

**Directions (13 - 17) :** What should come in place of the question mark (?) in the following number series ?

(New India Assurance AO  
Exam. 25.10.2009)

13. 3 52 88 113 129 ?

- (1) 128 (2) 142  
(3) 133 (4) 145  
(5) None of these

14. 2 3 8 ? 112 565

- (1) 36 (2) 14  
(3) 27 (4) 45  
(5) None of these

15. 6 4 8 23 ? 385.25

- (1) 84.5 (2) 73  
(3) 78.5 (4) 82  
(5) None of these

18. 8 84 216 512 ? 1728

- (1) 729 (2) 1331  
(3) 684 (4) 1000  
(5) None of these

17. 5 11 32 108 444 ?

- (1) 1780 (2) 2230  
(3) 1784 (4) 2225  
(5) None of these

18. If  $S = 1^2 - 2^2 + 3^2 - 4^2 + \dots + 199^2 - 200^2$ , then the value of S is

- (1) 19900 (2) 20100  
(3) -20100 (4) -19900

(New India Assurance AO  
Exam. 25.10.2009)

19. The expression  $4 + \frac{3}{36} + \frac{5}{144} + \dots + \frac{7}{5184} + \frac{17}{19}$

is equal to

- (1) 0.9 (2) 0.95  
(3) 0.99 (4) 1.91

**Directions (20- 24) :** What will come in place of the question mark (?) in the following number series ?

**(United India Insurance AO  
Exam. 27.03.2011)**

20. 8 14 32 70 136 (?)  
(1) 248 (2) 247  
(3) 237 (4) 238  
(5) None of these
21. 25 41 89 169 281 (?)  
(1) 425 (2) 415  
(3) 409 (4) 419  
(5) None of these
22. 461 474 465 478 469 (?)  
(1) 460 (2) 482  
(3) 456 (4) 478  
(5) None of these
23. 980 516 284 168 110 (?)  
(1) 73 (2) 71  
(3) 83 (4) 91  
(5) None of these
24. 4 4 10 34 94 (?)  
(1) 230 (2) 214  
(3) 220 (4) 209  
(5) None of these
25. The sum  $1 + 3 - 5 + 7 + 9 - 11 + 13 + 15 - 17 + \dots + 61 + 63 - 65$  is equal to  
(1) 319 (2) 330  
(3) 341 (4) 451

**(New India Insurance  
AAO Exam. 22.05.2011)**

26. If  $x = \frac{1}{2} + \frac{1}{6} + \frac{1}{12} + \frac{1}{20} + \frac{1}{30} + \frac{1}{42} + \frac{1}{56} + \frac{1}{63}$   
then value of  $\frac{1}{x}$  is closest to  
(1) 1.1 (2) 1  
(3) 0.9 (4) 0.8

**(Ntw India Insurance AAO  
Exam. 22.05.2011)**

27. If  $1 - \frac{1}{2} + \frac{1}{3} - \frac{1}{4} + \dots + \frac{1}{2011} = \frac{x}{2011}$  then the value of  $x$  is  
(1) 1 (2) 2010  
(3) 2011 (4) 2012

**(United India Insurance AAO  
Exam. 03.06.2012)**

**Directions (28 - 32) :** Find the wrong number in the following number series .

**(LIC Assistant Administrative Officer  
(AAO) Exam. 12.05.2013)**

28. 1050 510 242 106 46 16 3  
(1) 3 (2) 106  
(3) 242 (4) 510  
(5) None of these
29. 550 546 537 521 494 460 411  
(1) 494 (2) 546  
(3) 521 (4) 460  
(5) None of these
30. 8 21 47 86 140 203 281  
(1) 47 (2) 86  
(3) 140 (4) 203  
(5) None of these
31. 4 24 161 965 4795 19176 57525  
(1) 161 (2) 965  
(3) 57525 (4) 19176  
(5) None of these
32. 1 2 8 24 120 720 5040  
(1) 120 (2) 24  
(3) 8 (4) 720  
(5) None of these

**Directions (33-38) :** What should come in place of the question mark (?) in the following number series ?

**(United India Insurance AO  
Exam. 26.05.2013)**

33. 1548 516 129 43 ?  
(1) 11 (2) 10.75  
(3) 9.5 (4) 12  
(5) None of these
34. 949 189.8 ? 22.776 11.388 6.8328  
(1) 48.24 (2) 53.86  
(3) 74.26 (4) 56.94  
(5) None of these
35. 121 144 190 259 ? 466  
(1) 351 (2) 349  
(3) 374 (4) 328  
(5) None of these
36. 14 43.5 264 ? 76188  
(1) 3168 (2) 3176  
(3) 1587 (4) 1590  
(5) None of these
37. 41 164 2624 ? 6045696  
(1) 104244 (2) 94644  
(3) 94464 (4) 102444  
(5) None of these
38. Find the missing number in the series :  
2, 5, 9, ?, 20, 27  
(1) 14 (2) 16  
(3) 18 (4) 24

**(NICL (GIC) Administrative  
Officer Exam. 15.1.2.2013)**

**SHORT ANSWERS  
NATIONALISED BANKS  
& IBPS PO/MT/SO**

- |      |     |      |     |      |     |      |     |
|------|-----|------|-----|------|-----|------|-----|
| 1.   | (4) | 2.   | (1) | 105. | (4) | 106. | (2) |
| 3.   | (4) | 4.   | (3) | 107. | (3) | 108. | (5) |
| 5.   | (2) | 6.   | (3) | 109. | (5) | 110. | (1) |
| 7.   | (5) | 8.   | (2) | 111. | (3) | 112. | (4) |
| 9.   | (1) | 10.  | (4) | 113. | (5) | 114. | (1) |
| 11.  | (3) | 12.  | (5) | 115. | (2) | 116. | (3) |
| 13.  | (2) | 14.  | (1) | 117. | (2) | 118. | (1) |
| 15.  | (4) | 16.  | (1) | 119. | (1) | 120. | (2) |
| 17.  | (5) | 18.  | (1) | 121. | (2) | 122. | (5) |
| 19.  | (1) | 20.  | (2) | 123. | (3) | 124. | (3) |
| 21.  | (4) | 22.  | (3) | 125. | (3) | 126. | (2) |
| 23.  | (2) | 24.  | (4) | 127. | (5) | 128. | (3) |
| 25.  | (1) | 26.  | (5) | 129. | (4) | 130. | (3) |
| 27.  | (3) | 28.  | (1) | 131. | (3) | 132. | (2) |
| 29.  | (3) | 30.  | (2) | 133. | (4) | 134. | (5) |
| 31.  | (5) | 32.  | (4) | 135. | (4) | 136. | (1) |
| 33.  | (1) | 34.  | (3) | 137. | (2) | 138. | (1) |
| 35.  | (2) | 36.  | (3) | 139. | (3) | 140. | (1) |
| 37.  | (5) | 38.  | (5) | 141. | (4) | 142. | (5) |
| 39.  | (3) | 40.  | (3) | 143. | (3) | 144. | (3) |
| 41.  | (2) | 42.  | (1) | 145. | (3) | 146. | (5) |
| 43.  | (3) | 44.  | (5) | 147. | (2) | 148. | (3) |
| 45.  | (4) | 46.  | (1) | 149. | (1) | 150. | (3) |
| 47.  | (2) | 48.  | (1) | 151. | (5) | 152. | (4) |
| 49.  | (4) | 50.  | (5) | 153. | (2) | 154. | (1) |
| 51.  | (3) | 52.  | (2) | 155. | (2) | 156. | (4) |
| 53.  | (5) | 54.  | (1) | 157. | (4) | 158. | (1) |
| 55.  | (3) | 56.  | (2) | 159. | (3) | 160. | (2) |
| 57.  | (4) | 58.  | (3) | 161. | (4) | 162. | (1) |
| 59.  | (5) | 60.  | (1) | 163. | (1) | 164. | (4) |
| 61.  | (2) | 62.  | (4) | 165. | (5) | 166. | (4) |
| 63.  | (5) | 64.  | (4) | 167. | (4) | 168. | (2) |
| 65.  | (3) | 66.  | (2) | 169. | (5) | 170. | (4) |
| 67.  | (1) | 68.  | (3) | 171. | (1) | 172. | (1) |
| 69.  | (4) | 70.  | (1) | 173. | (3) | 174. | (5) |
| 71.  | (5) | 72.  | (3) | 175. | (4) | 176. | (1) |
| 73.  | (5) | 74.  | (1) | 177. | (5) | 178. | (3) |
| 75.  | (4) | 76.  | (2) | 179. | (2) | 180. | (3) |
| 77.  | (3) | 78.  | (2) | 181. | (5) | 182. | (3) |
| 79.  | (4) | 80.  | (1) | 183. | (4) | 184. | (5) |
| 81.  | (5) | 82.  | (3) | 185. | (4) | 186. | (4) |
| 83.  | (3) | 84.  | (3) | 187. | (1) | 188. | (5) |
| 85.  | (3) | 86.  | (2) | 189. | (3) | 190. | (2) |
| 87.  | (3) | 88.  | (1) | 191. | (4) | 192. | (1) |
| 89.  | (5) | 90.  | (3) | 193. | (2) | 194. | (5) |
| 91.  | (1) | 92.  | (4) | 195. | (2) | 196. | (4) |
| 93.  | (3) | 94.  | (1) | 197. | (1) | 198. | (3) |
| 95.  | (5) | 96.  | (4) | 199. | (2) | 200. | (4) |
| 97.  | (3) | 98.  | (1) | 201. | (3) | 202. | (5) |
| 99.  | (2) | 100. | (2) | 203. | (4) | 204. | (2) |
| 101. | (4) | 102. | (5) | 205. | (1) | 206. | (2) |
| 103. | (1) | 104. | (3) | 207. | (4) | 208. | (3) |
|      |     |      |     | 209. | (1) | 210. | (2) |
|      |     |      |     | 211. | (2) | 212. | (1) |
|      |     |      |     | 213. | (5) | 214. | (4) |

- |      |     |      |     |
|------|-----|------|-----|
| 215. | (3) | 216. | (1) |
| 217. | (4) | 218. | (5) |
| 219. | (3) | 220. | (3) |
| 221. | (1) | 222. | (2) |
| 223. | (3) | 224. | (4) |
| 225. | (5) | 226. | (5) |
| 227. | (3) | 228. | (5) |
| 229. | (5) | 230. | (5) |

**SBI PO EXAMS**

- |     |     |     |     |
|-----|-----|-----|-----|
| 1.  | (3) | 2.  | (3) |
| 3.  | (4) | 4.  | (5) |
| 5.  | (1) | 6.  | (4) |
| 7.  | (2) | 8.  | (5) |
| 9.  | (3) | 10. | (3) |
| 11. | (4) | 12. | (5) |
| 13. | (5) | 14. | (1) |
| 15. | (3) | 16. | (1) |
| 17. | (2) | 18. | (4) |
| 19. | (3) | 20. | (5) |
| 21. | (4) | 22. | (2) |
| 23. | (1) | 24. | (4) |
| 25. | (3) | 26. | (1) |
| 27. | (2) | 28. | (1) |
| 29. | (3) | 30. | (4) |
| 31. | (3) | 32. | (3) |
| 33. | (1) | 34. | (2) |
| 35. | (4) | 36. | (3) |
| 37. | (1) | 38. | (5) |
| 39. | (4) | 40. | (4) |
| 41. | (2) | 42. | (5) |
| 43. | (4) | 44. | (1) |
| 45. | (3) | 46. | (2) |
| 47. | (4) | 48. | (5) |
| 49. | (5) | 50. | (1) |
| 51. | (3) | 52. | (4) |
| 53. | (2) | 54. | (1) |
| 55. | (3) | 56. | (4) |
| 57. | (1) | 58. | (2) |
| 59. | (3) | 60. | (4) |

61. (5)

**RBI GRADE-B OFFICER EXAMS**

- |     |     |     |     |
|-----|-----|-----|-----|
| 1.  | (4) | 2.  | (5) |
| 3.  | (3) | 4.  | (2) |
| 5.  | (1) | 6.  | (5) |
| 7.  | (3) | 8.  | (4) |
| 9.  | (1) | 10. | (2) |
| 11. | (3) | 12. | (2) |
| 13. | (4) | 14. | (1) |
| 15. | (5) | 16. | (4) |
| 17. | (2) | 18. | (1) |
| 19. | (5) | 20. | (3) |
| 21. | (3) | 22. | (2) |
| 23. | (5) | 24. | (1) |
| 25. | (5) | 26. | (4) |
| 27. | (4) | 28. | (3) |
| 29. | (2) | 30. | (2) |
| 31. | (3) | 32. | (4) |
| 33. | (5) |     |     |

**INSURANCE EXAMS**

- |     |     |     |     |
|-----|-----|-----|-----|
| 1.  | (2) | 2.  | (3) |
| 3.  | (3) | 4.  | (2) |
| 5.  | (1) | 6.  | (5) |
| 7.  | (4) | 8.  | (1) |
| 9.  | (2) | 10. | (4) |
| 11. | (3) | 12. | (5) |
| 13. | (5) | 14. | (3) |
| 15. | (1) | 16. | (4) |
| 17. | (2) | 18. | (3) |
| 19. | (3) | 20. | (4) |
| 21. | (1) | 22. | (2) |
| 23. | (5) | 24. | (5) |
| 25. | (1) | 26. | (1) |
| 27. | (4) | 28. | (2) |
| 29. | (1) | 30. | (3) |
| 31. | (2) | 32. | (3) |
| 33. | (2) | 34. | (4) |
| 35. | (1) | 36. | (5) |
| 37. | (3) | 38. | (1) |

**EXPLANATIONS**  
**NATIONALISED BANKS**  
**& IBPS PO/MT/SO**

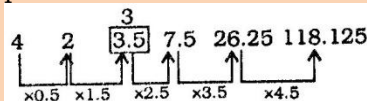
1. (4) The series is based on the following pattern:  
 $11 = 2 \times 3 + 5$   
 $38 = 11 \times 4 - 6$   
 $197 = 38 \times 5 + 7$   
 $1172 = 197 \times 6 - 8$   
**1172** is wrong and it should be replaced by  $197 \times 6 - 8 = 1174$

2. (1) The series is based on the following pattern:  
 $107 - 71 = 36 = 6^2$   
 $71 - 46 = 25 = 5^2$   
 $46 - 30 = 16 = 4^2$   
 $30 - 21 = 9 = 3^2$   
 $21 - 19 = 2 = 2^2$

**19** I should be replaced by 17 for which  $21 - 17 = 2^2$

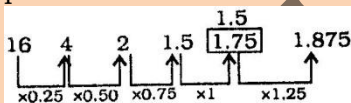
3. (4) The series is based on the following pattern:  
 $16 = 9 + 7$   
 $25 = 16 + 9$   
 $41 = 25 + 16$   
**68**  $41 + 25$

4. (3) The series is based on the following pattern:



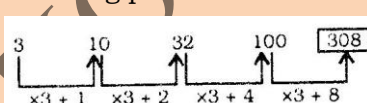
Obviously, 3.5 is the wrong number which should be replaced by 3.

5. (2) The series is based on the following pattern:



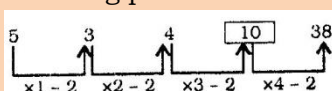
Obviously, 1.75 is the wrong number which should be replaced by 1.5.

6. (3) The given series is based on the following pattern:



Hence, 308 will come in place of question mark.

7. (5) The given series is based on the following pattern:



Hence, 10 will come in place of question mark.

8. (2) The given series is based on the following pattern:

$$5 \times 1 + (1)^2 = 6$$

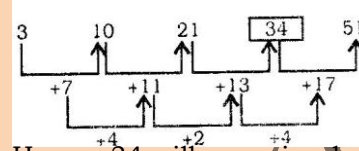
$$6 \times 2 + (2)^2 = 16$$

$$16 \times 3 + (3)^2 = 57$$

$$57 \times 4 + (4)^2 = 244$$

Hence, 16 will come in place of question mark.

9. (1) The given series is based on the following patterns.



Hence, 34 will come in place of question mark.

10. (4) The given series is based on the following pattern:

$$5 \times 2 + 1 = 11$$

$$11 \times 2 + 3 = 25$$

$$25 \times 2 + 5 = 55$$

$$55 \times 2 + 7 = 117$$

11. (3) The given series is based on the following pattern:

$$30 = 12 \times 6 - 7 \times 6$$

$$120 = 30 \times 5 - 6 \times 5$$

$$460 = 120 \times 4 - 5 \times 4$$

$$1368 = 460 \times 3 - 4 \times 3$$

$$2730 = 1368 \times 2 - 3 \times 2$$

Similarly,

$$(a) = 16 \times 6 - 7 \times 6 = 96 - 42 = 54$$

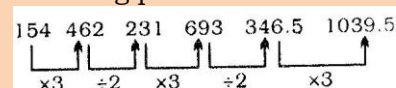
$$(b) = 54 \times 5 - 6 \times 5 = 240$$

$$(c) = 240 \times 4 - 5 \times 4 = 940$$

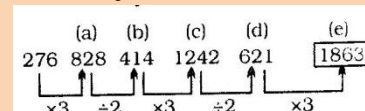
$$(d) = 940 \times 3 - 4 \times 3 = 2808$$

Hence, 2808 will come in place of (d).

12. (5) The given series is based on the following pattern:

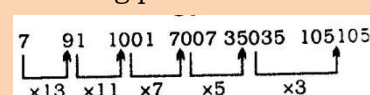


Similarly,

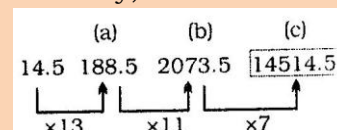


Hence, 1863 will come in place of (e).

13. (2) The given series is based on the following pattern:

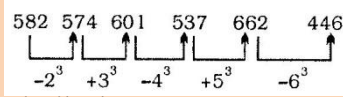


Similarly,

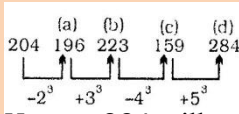


Hence, 14514.5 will come in place of (c).

14. (1) The given series is based on the following pattern :

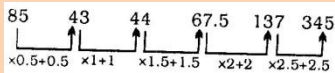


Similarly,

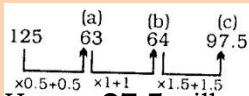


Hence, 284 will come in place of (d).

15. (4) The given series is based on the following pattern:



Similarly,



Hence, **97.5** will come in place of (c).

16. (1) The given series is based on the following pattern :

$$1 = 1^3 \qquad \qquad \qquad ? = 2^3 = \mathbf{8}$$

$$27 = 3^3 \qquad \qquad \qquad 64 = 4^3$$

$$125 = 5^3$$

Hence, 8 will come in place of the question mark.

17. (5) The given series is based on the following pattern :

$$25 = 5^2 \qquad \qquad \qquad 16 = 4^2$$

$$? = 3^2 = \mathbf{9} \qquad \qquad \qquad 4 = 2^2 \text{ and}$$

$$1 = 1^2$$

Hence, 9 will come in place of the question mark,

18. (1) The given series is based on the following pattern:

$$1 \times 2 + 2 \times 2 = 6$$

$$6 \times 4 + 4 \times 3 = 36$$

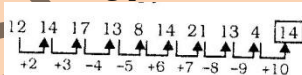
$$36 \times 6 + 6 \times 4 = 240$$

$$240 \times 8 + 8 \times 5 = 1960$$

$$1960 \times 10 + 10 \times 6 = \mathbf{19660}$$

Hence, 19660 will come in place of the question mark.

19. (1) The given series is based on the following pattern :



Hence, 14 will come in place of the question mark.

20. (2) The given series is based on the following pattern :

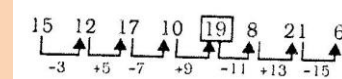
$$2 + 5 = 7 \qquad \qquad \qquad 7 + 5 = 12$$

$$12 + 7 = 19 \qquad \qquad \qquad 19 + 12 = 31$$

$$31 + 19 = 50 \qquad \qquad \qquad 50 + 31 = \mathbf{81}$$

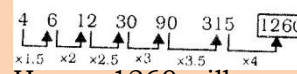
Hence, 81 will come in place of the question mark.

21. (4) The given series is based on the following pattern:



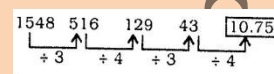
Hence, 19 will come in place of the question mark.

22. (3) The given series is based on the following pattern :



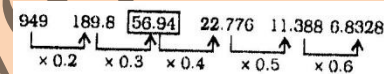
Hence, 1260 will come in place of the question mark.

23. (2) The given number series is based on the following pattern :



Hence, 10.75 will replace the question mark.

24. (4) The given number series is based on the following pattern :



Hence, 56.94 will replace the question mark.

25. (1) The given number series is based on the following pattern :

$$121 + 23 \times 1 = 144$$

$$144 + 23 \times 2 = 190$$

$$190 + 23 \times 3 = 259$$

$$? = 259 + 23 \times 4$$

$$= 259 + 92 = 351$$

Hence, **351** will replace the question mark.

26. (5) The given number series is based on the following pattern :

$$14 \times 3 + 1.5 = 43.5$$

$$43.5 \times 6 + 1.5 \times 2 = 264$$

$$264 \times 12 + 1.5 \times 4 = \mathbf{3174}$$

$$3174 \times 24 + 1.5 \times 8 = 76188$$

Hence, 3174 will replace the question mark.

27. (3) The given number series is based on the following pattern :

$$41 \times 2^2 = 164$$

$$164 \times 4^2 = 2624$$

$$2624 \times 6^2 = \mathbf{94464}$$

$$94464 \times 8^2 = 6045696$$

Hence, 94464 will replace the question mark.

28. (1) The given number series is based on the following pattern :

$$12 \times 1 = 12$$

$$12 \times 1.5 = 18$$

$$18 \times (1 + 1.5) = 18 \times 2.5 = 45$$

$$45 \times (1.5 + 2.5) = 45 \times 4 = 180$$

$$180 \times (4 + 2.5) = 180 \times 6.5 = 1170$$

$$? = 1170 \times (4 + 6.5) = \mathbf{12285}$$

Hence, 12285 will replace the question mark.

29. (3) The given number series is based on the following pattern :

$$467 - 444 = 23 = 23 \times 1$$

$$513 - 467 = 46 = 23 \times 2$$

$$582 - 513 = 69 = 23 \times 3$$

$$674 - 582 = 92 = 23 \times 4$$

$$789 - 674 = 115 = 23 \times 5$$

$$? = 789 + 23 \times 6$$

$$= 789 + 138 = \mathbf{927}$$

Hence, 927 will replace the question mark.

30. (2) The given number series is based on the following pattern :

$$1 = 1^4; \quad 16 = 2^4;$$

$$81 = 3^4; \quad 256 = 4^4;$$

$$625 = 5^4; \quad 1296 = 6^4;$$

$$? = 7^4 = 7 \times 7 \times 7 \times 7$$

$$= \mathbf{2401}$$

Hence, 2401 will replace the question mark.

31. (5) The given number series is based on the following pattern :

$$23 \times 1 + 2 = 25$$

$$25 \times 2 + 3 = 53$$

$$53 \times 3 + 4 = 163$$

$$163 \times 4 + 5 = 657$$

$$657 \times 5 + 6 = 3291$$

$$? = 3291 \times 6 + 7$$

$$= 19746 + 7 = \mathbf{19753}$$

Hence, 19753 will replace the question mark.

32. (4) The given number series is based on the following pattern :

$$13 \times 1 = 13$$

$$13 \times 5 = 65$$

$$65 \times 9 = 585$$

$$585 \times 13 = 7605$$

$$7605 \times 17 = 129285$$

$$? = 129285 \times 21 = \mathbf{2714985}$$

Hence, 2714985 will replace the question mark.

33. (1) The given number series is based on the following pattern :

$$40280625 \quad 55 = 732375$$

$$732375 \quad 45 = 16275$$

$$16275 \quad 35 = 465$$

$$465 \quad 25 = 18.6$$

$$18.6 \quad 15 = 1.24$$

$$? = 1.24 \quad 5 = \mathbf{0.248}$$

Hence, 0.248 will replace the question mark.

34. (3) The given number series is based on the following pattern :

$$14 \times 1 - 2 = 14 - 2 = 12$$

$$12 \times 2 - 3 = 24 - 3 = 21$$

$$21 \times 3 - 4 = 63 - 4 = 59$$

$$59 \times 4 - 5 = 236 - 5 = 231$$

$$231 \times 5 - 6 = 1155 - 6 = 1149$$

$$? = 1149 \times 6 - 7$$

$$= 6894 - 7 = \mathbf{6887}$$

Hence, 6887 will replace the question mark.

35. (2) The given number series is based on the following pattern :

$$12 \times 12 \times 12 = 1728$$

$$14 \times 14 \times 14 = 2744$$

$$16 \times 16 \times 16 = 4096$$

$$18 \times 18 \times 18 = 5832$$

$$20 \times 20 \times 20 = 8000$$

$$22 \times 22 \times 22 = 10648$$

$$? = 24 \times 24 \times 24 = \mathbf{13824}$$

Hence, 13824 will replace the question mark.

36. (3) The given number series is based on the following pattern :

$$120 \div 8 = 15$$

$$15 \times 7 = 105$$

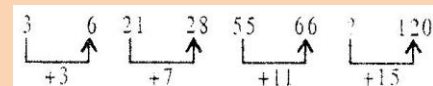
$$105 \div 6 = 17.5$$

$$17.5 \times 5 = 87.5 = 87.5$$

$$4 = \mathbf{21.875}$$

Hence, 21.875 will replace the question mark.

37. (5) The given number series is based on the following pattern :



Hence, 105 will replace the question mark.

38. (5) The given number series is based on the following pattern :

$$487.5 - 357.5 = 130$$

$$357.5 - 247.5 = 110$$

$$247.5 - 157.5 = 90$$

$$157.5 - 87.5 = 70$$

$$87.5 - 47.5 = \mathbf{40}$$

$$87.5 - 37.5 = 50$$

$$37.5 - 7.5 = 30$$

Clearly, **47.5** is the wrong number. It should be replaced by 37.5.

39. (3) The given number series is based on the following pattern :

$$13 + 3 = 16$$

$$16 + 5 = 21$$

$$21 + 7 = 28 \quad \mathbf{27}$$

$$28 + 11 = 39$$

$$39 + 13 = 52$$

$$52 + 17 = 69$$

Clearly, 27 is the wrong number. It should be replaced by 28.

40. (3) The given number series is based on the following pattern :

$$\begin{aligned} 1500 + 81 &= 1581 \\ 1581 + 83 &= 1664 \\ 1664 + 85 &= 1749 \\ 1749 + 87 &= 1836 \quad \mathbf{1833} \\ 1836 + 89 &= 1925 \\ 1925 + 91 &= 2016 \end{aligned}$$

Clearly, 1833 is the wrong number. It should be replaced by 1836.

41. (2) The given number series is based on the following pattern :

$$\begin{aligned} 66 + 25 &= 91 \\ 91 + 29 &= 120 \\ 120 + 33 &= 153 \\ 153 + 37 &= 190 \\ 190 + 41 &= 231 \quad \mathbf{233} \\ 231 + 45 &= 276 \end{aligned}$$

Clearly, 233 is the wrong number. It should be replaced by 231.

42. (1) The given number series is based on the following pattern :

$$\begin{aligned} 11 \times 11 \times 11 &= 1331 \\ 13 \times 13 \times 13 &= 2197 \\ 15 \times 15 \times 15 &= 3375 \\ 17 \times 17 \times 17 &= 4913 \quad \mathbf{4914} \\ 19 \times 19 \times 19 &= 6859 \end{aligned}$$

Clearly, 4914 is the wrong number. It should be replaced by 4913.

43. (3) The given number series is based on the following pattern :

$$\begin{aligned} 20 + 2^2 &= 24 \\ 24 + 3^2 &= 33 \\ 33 + 4^2 &= 49 \\ 49 + 5^2 &= 74 \\ 74 + 6^2 &= 110 \quad ? \neq \\ 110 + 7^2 &= 110 + \\ 49 &= \mathbf{159} \end{aligned}$$

44. (5) The given number series is based on the following pattern :

$$\begin{aligned} 529 &= 23 \times 23 \\ 841 &= 29 \times 29 \\ 961 &= 31 \times 31 \\ 1369 &= 37 \times 37 \\ 1681 &= 41 \times 41 \\ 1849 &= 43 \times 43 \\ ? &= 47 \times 47 = \mathbf{2209} \end{aligned}$$

Here, the numbers are formed by squaring the prime numbers greater than 23.

45. (4) The given number series is based on the following pattern :

$$\begin{aligned} 16 \times 1.5 &= 24 \\ 24 \times 2 &= 48 \end{aligned}$$

$$\begin{aligned} 48 \times 2.5 &= 120 \\ 120 \times 3 &= 360 \\ 360 \times 3.5 &= 1260 \\ ? &= 1260 \times 4 = \mathbf{5040} \end{aligned}$$

46. (1) The given number series is based on the following pattern :

$$\begin{aligned} 8 \times 4 - 1 &= 32 - 1 = 31 \\ 31 \times 4 - 2 &= 124 - 2 = 122 \\ 122 \times 4 - 3 &= 488 - 3 = 485 \\ 485 \times 4 - 4 &= 1940 - 4 = 1936 \\ 1936 \times 4 - 5 &= 7744 - 5 = 7739 \\ ? &= 7739 \times 4 - 6 \\ &= 30956 - 6 = \mathbf{30950} \end{aligned}$$

47. (2) The given number series is based on the following pattern :

$$\begin{aligned} 499 + 1 \times 123 &= 622 \\ 622 + 2 \times 123 &= 868 \\ 868 + 3 \times 123 &= 1237 \\ 1237 + 4 \times 123 &= 1729 \\ 1729 + 5 \times 123 &= 2344 \\ ? &= 2344 + 6 \times 123 \\ &= 2344 + 738 = \mathbf{3082} \end{aligned}$$

48. (1) The given number series is based on the following pattern

$$\begin{aligned} 1^2 &= 1; 2^2 = 4 \\ 3^3 &= 27; 4^4 = 256 \\ 5^5 &= 3125; 6^6 = \mathbf{46656} \end{aligned}$$

Hence 46658 is the wrong number.

49. (4) The given number series is based on the following pattern

$$\begin{aligned} 18000 \div 5 &= 3600 \\ 3600 \div 5 &= 720 \\ 720 \div 5 &= 144 \quad \mathbf{142.2} \\ 144 \div 5 &= 28.3 \\ 28.3 \div 5 &= 5.76 \end{aligned}$$

Hence 142.2 is the wrong number.

50. (5) The given number series is based on the following pattern :

$$\begin{aligned} 12 + 15^2 &= 12 + 225 = 237 \\ 237 + 13^2 &= 237 + 169 = 406 \\ 406 + 11^2 &= 406 + 121 = 527 \\ 527 + 81 &= 608 \\ 608 + 7^2 &= 608 + 49 = 657 \text{ Hence} \\ 604 &\text{ is the wrong number.} \end{aligned}$$

51. (3) The given number series is based on the following pattern :

$$\begin{aligned} 3 \times 7 + 2 \times 7 &= 21 + 14 = 35 \\ 35 \times 6 + 3 \times 6 &= 210 + 18 = \\ 228 &\mathbf{226} \\ 228 \times 5 + 4 \times 5 &= 1140 + 20 = 1160 \\ 1160 \times 4 + 5 \times 4 &= 4640 + 20 = 4660 \\ 4660 \times 3 + 6 \times 3 &= 13980 + 18 = 13998 \\ \text{Hence } 226 &\text{ is the wrong number} \end{aligned}$$

52. (2) The given number series is based on the following pattern :



$18 \times 7 - 7 = 126 - 7 = 119$   
 $119 \times 6 - 6 = 714 - 708$   
 $708 \times 5 - 5 = 3540 - 5 = 3535$  **3534**  
 $3535 \times 4 - 4 = 14140 - 4 = 14136$   
 Hence 3534 is the wrong number.

53. (5)  $5 + 2^2 = 5 + 4 = 9$   
 $9 + 3^2 = 9 + 9 = 18$   
 $18 + 4^2 = 18 + 16 = 34$   
 $34 + 5^2 = 34 + 25 = 59$   
 $59 + 6^2 = 59 + 36 = 95$   
 $? = 95 + 7^2 = 95 + 49 = 144$
54. (1)  $1200 \div 2.5 = 480$   
 $480 \div 2.5 = 192$   
 $192 \div 2.5 = 76.8$   
 $76.8 \div 2.5 = 30.72$   
 $30.72 \div 2.5 = 12.288$   
 $? = 12.288 \div 2.5 = 4.9152$
55. (3)  $963 - 1 \times 36 = 963 - 36 = 927$   
 $927 - 2 \times 36 = 927 - 72 = 855$   
 $855 - 3 \times 36 = 855 - 108 = 747$   
 $747 - 4 \times 36 = 747 - 144 = 603$   
 $603 - 5 \times 36 = 603 - 180 = 423$   
 $? = 423 - 6 \times 36 = 423 - 216 = 207$
56. (2)  $29 \times 29 = 841$   
 $31 \times 31 = 961$   
 $33 \times 33 = 1089$   
 $35 \times 35 = 1225$   
 $37 \times 37 = 1369$   
 $39 \times 39 = 1521$   
 $? = 41 \times 41 = 1681$
57. (4)  $18 \times 1 + 2 = 18 + 2 = 20$   
 $20 \times 2 + 4 = 40 + 4 = 44$   
 $44 \times 3 + 6 = 132 + 6 = 138$   
 $138 \times 4 + 8 = 552 + 8 = 560$   
 $560 \times 5 + 10 = 2800 + 10 = 2810$   
 $? = 2810 \times 6 + 12 = 16860 + 12 = 16872$
58. (3)  $4 \times 1 + 2 = 4 + 2 = 6$   
 $6 \times 2 + 3 = 12 + 3 = 15$  **18**  
 $15 \times 3 + 4 = 45 + 4 = 49$   
 $49 \times 4 + 5 = 196 + 5 = 201$   
 $201 \times 5 + 6 = 1005 + 6 = 1011$
59. (5)  $48 \times \frac{3}{2} = 72$ ;  $72 \times \frac{3}{2} = 108$   
 $108 \times \frac{3}{2} = 162$ ;  $162 \times \frac{3}{2} = 243$   
 $243 \times 2 = 364.5$  **366**
60. (1)  $2 \times 6 + 7 \times 6 = 12 + 42 = 54$   
 $54 \times 5 + 6 \times 5 = 270 + 30 = 300$   
 $300 \times 4 + 5 \times 4 = 1200 + 20 = 1220$   
 $1220 \times 3 + 4 \times 3 = 3660 + 12 = 3672$  **3674**  
 $3672 \times 2 + 3 \times 2 = 7344 + 6$

= 7350

61. (2)  $2^3 = 8$ ;  $3^3 = 27$   
 $4^3 = 64$ ;  $5^3 = 125$   
 $6^3 = 216$  **218**  
 $7^3 = 343$
62. (4)  $19 + 7^2 = 19 + 49 = 68$   
 $68 + 6^2 = 68 + 36 = 104$  **102**  
 $104 + 5^2 = 104 + 25 = 129$   
 $129 + 4^2 = 129 + 16 = 145$   
 $145 + 3^2 = 145 + 9 = 154$
63. (5)  
 $0 + 5 = 5$   
 $5 + 13 = 18$   
 $18 + 25 = 43$   
 $43 + 41 = 84$   
 $84 + 61 = 145$   
 $? = 145 + 85 = 230$
64. (4)  $10 \times 1 + 1 \times 7 = 10 + 7 = 17$   
 $17 \times 2 + 2 \times 7 = 34 + 14 = 48$   
 $48 \times 3 + 3 \times 7 = 144 + 21 = 165$   
 $165 \times 4 + 4 \times 7 = 660 + 28 = 688$   
 $688 \times 5 + 5 \times 7 = 3440 + 35 = 3475$   
 $? = 3475 \times 6 + 6 \times 7 = 20850 + 42 = 20892$
65. (3)  $1 \times 3 = 3$   
 $3 \times 8 = 24$   
 $24 \times 15 = 360$   
 $360 \times 24 = 8640$   
 $8640 \times 35 = 302400$   
 $? = 302400 \times 48 = 14515200$
66. (2)  $12 \times 1 + 2 \times 1 = 12 + 2 = 14$   
 $14 \times 2 + 2 \times 2 = 28 + 4 = 32$   
 $32 \times 3 + 2 \times 3 = 96 + 6 = 102$   
 $102 \times 4 + 2 \times 4 = 408 + 8 = 416$   
 $416 \times 5 + 2 \times 5 = 2080 + 10 = 2090$   
 $? = 2090 \times 6 + 2 \times 6 = 12540 + 12 = 12552$
67. (1)  $10 \times \frac{2}{4} = 5$   
 $15 \times \frac{5}{4} = 18.75$   
 $18.75 \times \frac{6}{8} = 14.0625$   
 $14.0625 \times \frac{7}{10} = 9.84375$   
 $? = 9.84375 \times 12 = 118.125$

68. (3) The pattern of the number series is :  
 $17 \times 3 + 1 = 51 + 1 = 52$   
 $52 \times 3 + 2 = 156 + 2 = 158$   
 $158 \times 3 + 3 = 474 + 3 = 477$   
 $477 \times 3 + 4 = 1431 + 4 = \mathbf{1435}$
69. (4) The pattern of the number series is :  
 $3 \times 7 + 1 = 21 + 1 = 22$   
 $22 \times 6 + 2 = 132 + 2 = \mathbf{134}$   
 $134 \times 5 + 3 = 670 + 3 = 673$   
 $673 \times 4 + 4 = 2692 + 4 = 2696$
70. (1) The pattern of the number series is :  
 $6 \times 1 + 1 \times 7 = 6 + 7 = 13$   
 $13 \times 2 + 2 \times 6 = 26 + 12 = 38$   
 $38 \times 3 + 3 \times 5 = 114 + 15 = \mathbf{129}$   
 $129 \times 4 + 4 \times 4 = 516 + 16 = 532$
71. (5) The pattern of the number series is :  
 $\frac{286}{2} - 1 = 143 - 1 = 142$   
 $\frac{142}{2} - 1 = 71 - 1 = \mathbf{70}$   
 $\frac{70}{2} - 1 = 35 - 1 = 34$   
 $\frac{34}{2} - 1 = 17 - 1 = 16$
72. (3) The pattern of the number series is :  
 $17 \times 0.5 + 0.5 = 9$   
 $9 \times 1 + 1 = \mathbf{10}$   
 $10 \times 1.5 + 1.5 = 16.5$   
 $16.5 \times 2 + 2 = 35$
73. (5) The pattern is :  
 $2 \times 3 + 2 = 6 + 2 = 8$   
 $8 \times 3 + 2 = 24 + 2 = 26$   
 $26 \times 3 + 2 = 78 + 2 = \mathbf{80}$   
 $80 \times 3 + 2 = 240 + 2 = 242$
74. (1) The pattern is :  
 $3 \times 1 + 1^2 = 3 + 1 = 4$   
 $4 \times 2 + 2^2 = 8 + 4 = 12$   
 $12 \times 3 + 3^2 = 36 + 9 = \mathbf{45}$   
 $45 \times 4 + 4^2 = 180 + 16 = 196$
75. (4) The pattern is :  
 $9 \times 2 - 1 = 18 - 1 = 17$   
 $17 \times 2 - 1 = 34 - 1 = \mathbf{33}$   
 $33 \times 2 - 1 = 66 - 1 = 65$   
 $65 \times 2 - 1 = 130 - 1 = 129$
76. (2) The pattern is :  
 $7 \times 2 - 1 = 14 - 1 = 13$   
 $13 \times 2 - 1 = 26 - 1 = \mathbf{25}$   
 $25 \times 2 - 1 = 50 - 1 = 49$   
 $49 \times 2 - 1 = 98 - 1 = 97$
77. (3) The pattern is :  
 $5 \times 0.5 + 0.5 = 2.5 + 0.5 = 3$   
 $3 \times 1.5 + 1.5 = 4.5 + 1.5 = 6$   
 $6 \times 2.5 + 2.5 = 15 + 2.5 = \mathbf{17.5}$   
 $17.5 \times 3.5 + 3.5 = 61.25 + 3.5 = 64.75$
78. (2) The pattern is :  
 $16 \times 0.5 = 8$     $8 \times 1.5 = 12$   
 $12 \times 2.5 = 30$     $30 \times 3.5 = \mathbf{105}$
79. (4) The pattern is :  
 $5 \times 1 + 1 = 6$   
 $6 \times 2 + 2 = 14$   
 $14 \times 3 + 3 = 45$   
 $45 \times 4 + 4 = 184$
80. (1) The pattern is :  
 $7 \times 1 + 1 \times 5 = 12$   
 $12 \times 2 + 2 \times 4 = 32$   
 $32 \times 3 + 3 \times 3 = 105$   
 $105 \times 4 + 4 \times 2 = \mathbf{428}$
81. (5) The pattern is :  
 $11 \times 2 + 1 = 23$   
 $23 \times 2 + 1 = 47$   
 $47 \times 2 + 1 = 95$   
 $95 \times 2 + 1 = \mathbf{191}$
82. (3) The pattern is :  
 $9 \times 2 - 1 = 17$   
 $17 \times 2 - 1 = 33$   
 $33 \times 2 - 1 = 65$   
 $65 \times 2 - 1 = \mathbf{129}$
83. (3) The pattern of the number series is :  
 $8 + 3 = 11$   
 $11 + 3^2 = 11 + 9 = 20$     $\mathbf{17}$   
 $20 + 3^3 = 20 + 27 = 47$   
 $47 + 3^4 = 47 + 81 = 128$   
 $128 + 3^5 = 128 + 243 = 371$
84. (3) The pattern of the number series is :  
 $1 + 2^2 = 1 + 4 = 5$   
 $5 + 2^3 = 5 + 8 = 13$   
 $13 + 2^4 = 13 + 16 = 29$     $\mathbf{31}$   
 $29 + 2^5 = 29 + 32 = 61$     $61 + 2^6 = 61 + 64 = 125$
85. (3) The pattern is :  
 $150 \times 2 - 1 \times 10 = 300 - 10 = 290$   
 $290 \times 2 - 2 \times 10 = 580 - 20 = 560$   
 $560 \times 2 - 3 \times 10 = 1120 - 30 = 1090$     $\mathbf{1120}$   
 $1090 \times 2 - 4 \times 10 = 2180 - 40 = 2140$   
 $2140 \times 2 - 5 \times 10 = 4280 - 50 = 4230$
86. (2) The pattern is :  $10 \times 1 - 2 = 8$   
 $8 \times 2 - 3 = 13$   
 $13 \times 3 - 4 = 35$   
 $35 \times 4 - 5 = 135$   
 $135 \times 5 - 6 = 675 - 6 = 669$     $\mathbf{671}$   
 $669 \times 6 - 7 = 4014 - 7 = 4007$
87. (3) The pattern is :  
 $(80 \div 2) + 2 = 40 + 2 = 42$

$$(42 \div 2) + 2 = 21 + 2 = 23 \quad \mathbf{24}$$

$$(23 \div 2) + 2 = 11.5 + 2 = 13.5$$

$$(13.5 \div 2) + 2 = 6.75 + 2 = 8.75$$

$$(8.75 \div 2) + 2 = 4.375 + 2 = 6.375$$

88. (1) The pattern is :

$$\begin{array}{r} 3 \\ \hline 125 \times 5 = 75 \end{array}$$

$$\begin{array}{r} 3 \\ \hline 75 \times 5 = 45 \end{array}$$

$$\begin{array}{r} 3 \\ \hline 45 \times 5 = 27 \quad \mathbf{25} \end{array}$$

$$\begin{array}{r} 3 \\ \hline 27 \times 5 = 16.2 \end{array}$$

$$\begin{array}{r} 3 \\ \hline 16.2 \times 5 = 9.72 \end{array}$$

89. (5) The pattern is :

$$29 + 1 \times 8 = 37$$

$$37 - 2 \times 8 = 37 - 16 = 21$$

$$21 + 3 \times 8 = 21 + 24 = 45 \quad \mathbf{43}$$

$$45 - 4 \times 8 = 45 - 32 = 13$$

$$13 + 5 \times 8 = 13 + 40 = 53$$

$$53 - 6 \times 8 = 53 - 48 = 5$$

90. (3) The pattern is:

$$13 + 12 = 25 ; 25 + 15 = 40$$

$$40 + 18 = 58 \quad \mathbf{57} \quad 58 + 21 = 79$$

91. (1) The pattern is :

$$850 - 200 = 650 \quad \mathbf{600}$$

$$650 - 100 = 550$$

$$550 - 50 = 500$$

$$500 - 25 = 475$$

$$475 - 12.5 = 462.5$$

92. (4) The pattern is:

$$2 \times 3 = 6 \quad \mathbf{10}$$

$$6 \times 3 = 18 \quad ; 18 \times 3 = 54$$

$$54 \times 3 = 162$$

93. (3) The pattern is:

$$8 + 4 \times 1 = 12; 12 + 4 \times 3 = 24$$

$$24 + 4 \times 5 = 44 \quad \mathbf{46} \quad 44 + 4 \times 7 =$$

$$72$$

$$72 + 4 \times 9 = 108$$

94. (1) The pattern is :

$$142 - 23 = 119 ; 119 - 19 = 100$$

$$100 - 17 = 83$$

$$83 - 13 = 70 \quad \mathbf{65}$$

$$70 - 11 = 59$$

$$59 - 7 = 52$$

95. (5) The pattern is :

$$5 + 7^2 = 54$$

$$54 + 6^2 = 90$$

$$90 + 5^2 = 115$$

$$115 + 4^2 = 131$$

$$131 + 3^2 = 140$$

$$140 + 2^2 = 140 + 4 = \mathbf{144}$$

96. (4) The pattern is :

$$7 \times 0.5 + 0.5 = 3.5 + 0.5 = 4$$

$$4 \times 1 + 1 = 4 + 1 = 5$$

$$5 \times 1.5 + 1.5 = 7.5 + 1.5 = 9$$

$$9 \times 2 + 2 = 18 + 2 = \mathbf{20}$$

97. (3) The pattern is :

$$6 \times 7 = 42$$

$$42 \times 6 = \mathbf{252}$$

$$252 \times 5 = 1260$$

98. (1) The pattern is:

$$4 \times 5 - 10 = 10$$

$$10 \times 5 - 10 = 40$$

$$40 \times 5 - 10 = 190$$

$$190 \times 5 - 10 = 940$$

$$940 \times 5 - 10 = 4700 - 10$$

$$= \mathbf{4690}$$

99. (2) The pattern is :

$$2 \times 1 + 1 \times 7 = 9$$

$$9 \times 2 + 2 \times 6 = 30$$

$$30 \times 3 + 3 \times 5 = \mathbf{105}$$

$$105 \times 4 + 4 \times 4 = 436$$

$$436 \times 5 + 5 \times 3 = 2195$$

100. (2) The pattern of the number series is :

$$(484 \div 2) - 2 = 242 - 2 = 240$$

$$(240 \div 2) - 2 = 120 - 2 = 118 = 120$$

$$(118 \div 2) - 2 = 59 - 2 = 57$$

$$(57 \div 2) - 2 = 28.5 - 2 = 26.5$$

101. (4) The pattern of the number series is :

$$3 \times 1 + 2 = 5$$

$$5 \times 2 + 3 = 13$$

$$13 \times 3 + 4 = 43$$

$$43 \times 4 + 5 = 177 \quad \mathbf{176}$$

$$177 \times 5 + 6 = 891$$

102. (5) The Pattern of the number series is :

$$6 + 1^2 = 6 + 1 = 7$$

$$7 + 3^2 = 7 + 9 = 16$$

$$16 + 5^2 = 16 + 25 = 41$$

$$41 + 7^2 = 41 + 49 = 90$$

$$90 + 9^2 = 90 + 81 = 177 \quad \mathbf{154}$$

$$171 + 11^2 = 171 + 121 = 292$$

103. (1) The pattern of the number series is :

$$5 \times 1 + 1^2 = 6 \quad \mathbf{7} \quad 6 \times 2 + 2^2 = 16$$

$$16 \times 3 + 3^2 = 57$$

$$57 \times 4 + 4^2 = 228 + 16 = 244$$

$$244 \times 5 + 5^2 = 1220 + 25 = 1245$$

104. (3) The pattern of the number series is :

$$4 \times 0.5 + 0.5 = 2 + 0.5 = 2.5 \quad 2.5 \times 1 + 1 = 3.5$$

$$3.5 \times 1.5 + 1.5 = 6.75 = \mathbf{65}$$

$$6.75 \times 2 + 2 = 15.5$$

$$15.5 \times 2.5 + 2.5 = 38.75 + 2.5 = 41.25$$

$$41.25 \times 3 + 3 = 123.75 + 3 = 126.75$$

- 105.** (4) The pattern of the number series is :  
 $325 - 1 \times 11 = 314$   
 $314 - 2 \times 11 = 292$   
 $292 - 3 \times 11 = 259$   
 $259 - 4 \times 11 = 215$   
 $215 - 5 \times 11 = \mathbf{160}$
- 106.** (2) The pattern of the number series is :  
 $45 \times 1 + 1 = 46$   
 $46 \times 1.5 + 1 = 70$   
 $70 \times 2 + 1 = 141$   
 $141 \times 2.5 + 1$   
 $= 352.5 + 1 = \mathbf{353.5}$
- 107.** (3) The pattern of the number series is :  
 $620 + 1 \times 12 = 632$   
 $632 - 2 \times 12 = 608$   
 $608 + 3 \times 12 = 644$   
 $644 - 4 \times 12 = 596$   
 $596 + 5 \times 12 = j \text{ } 656 \text{ } j$
- 108.** (5) The pattern of the number series is :  
 $15 \times 2 - 1 \times 5 = 25$   
 $25 \times 2 - 2 \times 5 = 40$   
 $40 \times 2 - 3 \times 5 = 65$   
 $65 \times 2 - 4 \times 5 = \mathbf{110}$   
 $110 \times 2 - 5 \times 5 = 195$
- 109.** (5) The pattern of the number series is :  
 $120 \times 2.5 + 20 = 320$   
 $320 \times 2.5 + 20 = \mathbf{820}$   
 $820 \times 2.5 + 20 = 2070$   
 $2070 \times 2.5 + 20 = 5195$
- 110.** (1) The pattern of the number series is :  
 $32 + 1^2 = 32 + 1 = 33 \text{ } \mathbf{34}$   
 $33 + 2^2 = 33 + 4 = 37$   
 $37 + 3^2 = 37 + 9 = 46$   
 $46 + 4^2 = 46 + 16 = 62$   
 $62 + 5^2 = 62 + 25 = 87$
- 111.** (3) The pattern of the number series is :  
 $7 + 1 \times 11 = 7 + 11 = 18$   
 $18 + 3 \times 11 = 18 + 33 = 51 \text{ } \mathbf{40}$   
 $51 + 5 \times 11 = 51 + 55 = 106$   
 $106 + 7 \times 11 = 106 + 77 = 183$   
 $183 + 9 \times 11 = 183 + 99 = 282$
- 112.** (4) The pattern of the number series is :  
 $850 - 1 \times 7 = 843$   
 $843 - 2 \times 7 = 829$   
 $829 - 3 \times 7 = 808$   
 $808 - 4 \times 7 = 780 \text{ } \mathbf{788}$   
 $780 - 5 \times 7 = 745$   
 $745 - 6 \times 7 = 703$
- 113.** (5) The pattern of the number series is :  
 $33 + 288 = 321$   
 $321 + 144 = 465$   
 $465 + 72 = 537$   
 $537 + 36 = 573$   
 $573 + 18 = 591 \text{ } \mathbf{590}$   
 $591 + 9 = 600$
- 114.** (1) The pattern of the number series is :  
 $37 + 1 \times 5 = 42 \text{ } \mathbf{47}$   
 $42 + 2 \times 5 = 52$   
 $52 + 3 \times 5 = 67$   
 $67 + 4 \times 5 = 87$   
 $87 + 5 \times 5 = 112$   
 $112 + 6 \times 5 = 142$
- 115.** (2) The pattern of the number series is :  
 $13 + 3 = 16$   
 $16 + (3 + 3) = 22$   
 $22 + (6 + 5) = 33$   
 $33 + (11 + 7) = 51$   
 $51 + (18 + 9) = \mathbf{78}$
- 116.** (3) The pattern of the number series is :  
 $39 + 1 \times 13 = 52$   
 $52 + 2 \times 13 = 78$   
 $78 + 3 \times 13 = 117$   
 $117 + 4 \times 13 = 169$   
 $169 + 5 \times 13 = \mathbf{234}$
- 117.** (2) The pattern of the number series is :  
 $62 + 5^2 = 62 + 25 = 87$   
 $87 + 10^2 = 87 + 100 = 187$   
 $187 + 15^2 = 187 + 225 = 412$   
 $412 + 20^2 = 412 + 400 = 812$   
 $812 + (25)^2 = 812 + 625 = \mathbf{1437}$
- 118.** (1) The pattern of the number series is :  
 $7 + 1^2 = 8$   
 $8 + 4^2 = 24$   
 $24 + 9^2 = 105$   
 $105 + 16^2 = 361$   
 $361 + 25^2 = \mathbf{986}$
- 119.** (1) The pattern of the number series is :  
 $656 - 224 = 432$   
 $432 - 112 = 320$   
 $320 - 56 = 264$   
 $264 - 28 = 236$   
 $236 - 14 = \mathbf{222}$
- 120.** (2) The pattern of the number series is :  
 $7 \times 2 + 6 = 20$   
 $20 \times 2 + 6 = 46$   
 $46 \times 2 + 6 = 98$   
 $98 \times 2 + 6 = 202$   
 $202 \times 2 + 6 = 404 + 6 = \mathbf{410}$
- 121.** (2) The pattern of the number series is :  
 $210 - 1^3 = 209$   
 $209 + 2^2 = 213$   
 $213 - 3^3 = 186$   
 $186 + 4^2 = 202$   
 $202 - 5^3 = 202 - 125 = \mathbf{77}$
- 122.** (5) The pattern of the number series is :  
 $27 + 11 = 38$   
 $38 + 33 = 71$   
 $71 + 55 = 126$   
 $126 + 77 = 203$   
 $203 + 99 = \mathbf{302}$

- 123.** (3) The pattern of the number series is :

$$435 - 9 \times 9 = 354$$

$$354 - 9 \times 8 = 282$$

$$282 - 9 \times 7 = 219$$

$$219 - 9 \times 6 = 165$$

$$165 - 9 \times 5 = \mathbf{120}$$

- 124.** (3) The pattern of the number series is :

$$4 + 14^2 = 4 + 196 = 200$$

$$200 + 13^2 = 200 + 169 = 369$$

$$369 + 12^2 = 369 + 144 = 513$$

$$513 + 11^2 = 513 + 121 = 634$$

$$634 + 10^2 = 634 + 100 = \mathbf{734}$$

- 125.** (3) The pattern of the number series is :

$$495 - 1 \times 10 = 485$$

$$485 - 2 \times 10 = 465$$

$$465 - 4 \times 10 = 425$$

$$425 - 8 \times 10 = 345$$

$$345 - 16 \times 10 = \mathbf{185}$$

- 126.** (2) The pattern of the number series is :

$$16 + 6 = 22$$

$$22 + 11 = 33$$

$$33 + 16 = 49$$

$$49 + 21 = 70$$

$$70 + 26 = \mathbf{96}$$

- 127.** (5) The pattern of the number series is :

$$32 + 2^2 = 36$$

$$36 + 4^2 = 52$$

$$52 + 6^2 = 88$$

$$88 + 8^2 = 152$$

$$152 + 10^2 = 252$$

- 128.** (3) The pattern of the number series is :

$$17 + 272 = 289$$

$$289 + 136 = 425$$

$$425 + 68 = 493$$

$$493 + 34 = 527$$

$$527 + 17 = \mathbf{544}$$

- 129.** (4) The pattern of the number series is :

$$13 + 1 \times 14 = 27$$

$$27 + 2 \times 14 = 55$$

$$55 + 3 \times 14 = 97$$

$$97 + 4 \times 14 = 153$$

$$153 + 5 \times 14 = \mathbf{223}$$

- 130.** (3) The pattern of the number series is :

$$50 \times 1.2 = 60$$

$$60 \times 1.25 = 75$$

$$75 \times 1.3 = 97.5$$

$$97.5 \times 1.35 = \mathbf{131.625}$$

$$131.625 \times 1.4 = 184.275$$

- 131.** (3) The pattern of the number series is :

$$12 \times 1 + 3 \times 1 = 15$$

$$15 \times 2 + 3 \times 2 = 36$$

$$36 \times 3 + 3 \times 3 = \mathbf{117}$$

$$117 \times 4 + 3 \times 4 = 480$$

$$480 \times 5 + 3 \times 5 = 2415$$

- 132.** (2) The pattern of the number series is :

$$1 \times 1 + 1 = 2$$

$$2 \times 2 + 2 = 6$$

$$6 \times 3 + 3 = 21$$

$$21 \times 4 + 4 = 88$$

$$88 \times 5 + 5 = 445$$

$$445 \times 6 + 6 = \mathbf{2676}$$

- 133.** (4) The pattern of the number series is :

$$20 + 1^2 = 21$$

$$21 + 2^2 = 25$$

$$25 + 3^2 = 34$$

$$34 + 4^2 = 50$$

$$50 + 5^2 = \mathbf{75}$$

- 134.** (5) The pattern of the number series is :

$$\frac{600}{5} + 5 = 125$$

$$\frac{125}{5} + 5 = 30$$

$$\frac{30}{5} + 5 = 11$$

$$\frac{11}{5} + 5 = 7.2$$

- 135.** (4) The pattern of the number series is :

$$11 + 2^2 = 11 + 4 = 15$$

$$15 + 4^2 = 15 + 16 = 31$$

$$31 + 6^2 = 31 + 36 = 67$$

$$67 + 8^2 = 67 + 64 = 131$$

$$131 + 10^2 = 131 + 100 = \mathbf{231}$$

- 136.** (1) The pattern of the number series is :

$$483 - 1 \times 12 = 483 - 12 = 471$$

$$471 - 3 \times 12 = 471 - 36 = 435$$

$$435 - 5 \times 12 = 435 - 60 = 375$$

$$375 - 7 \times 12 = 375 - 84 = 291$$

$$291 - 9 \times 12 = 291 - 108 = \mathbf{183}$$

- 137.** (2) The pattern of the number series is :

$$5 + 1 \times 2 = 7$$

$$7 + 2 \times 3 = 13$$

$$13 + 3 \times 4 = 25$$

$$25 + 4 \times 5 = 45$$

$$45 + 5 \times 6 = \mathbf{75}$$

- 138.** (1) The pattern of the number series is :

$$4 + 1 \times 7 = 11$$

$$11 + 2 \times 7 = 25$$

$$25 + 4 \times 7 = 53$$

$$53 + 8 \times 7 = 109$$

$$109 + 16 \times 7 = 109 + 112 = \mathbf{221}$$

- 139.** (3) The pattern of the number series is :

$$15 + 6 \times 1 = 21$$

$$21 + 6 \times 2 = 33$$

$$33 + 6 \times 3 = 51$$

$$51 + 6 \times 4 = 75$$

$$75 + 6 \times 5 = 105$$

- 140.** (1) The pattern of the number series is :

$$5 + 7^3 = 5 + 343 = 348$$

$$348 + 6^3 = 348 + 216 = 564$$

$$564 + 5^3 = 564 + 125 = 689$$

$$689 + 4^3 = 689 + 64 = 753, \text{ not } \mathbf{716}$$

$$753 + 3^3 = 753 + 27 = 780$$

- 141.** (4) The pattern of the number series is :

$$\frac{4444}{2} + 2 = 2224$$

$$\frac{2224}{2} + 2 = 1114$$

$$\frac{1114}{2} + 2 = 559 \text{ not } \mathbf{556}$$

$$\frac{559}{2} + 2 = 281.5$$

- 142.** (5) The pattern of the number series is :

$$4.5 + 11.5 = 16$$

$$16 + 9.5 = 25.5, \text{ not } \mathbf{25}$$

$$25.5 + 7.5 = 33$$

$$33 + 5.5 = 38.5$$

- 143.** (3) The pattern of the number series is :

$$6 \times 7 + 1 \times 7 = 49$$

$$49 \times 6 + 2 \times 6 = 306, \text{ not } \mathbf{305}$$

$$306 \times 5 + 3 \times 5 = 1545$$

$$1545 \times 4 + 4 \times 4 = 6196$$

$$6196 \times 3 + 5 \times 3 = 18603$$

- 144.** (3) The pattern of the number series is :

$$8 \times 0.5 + 1 = 5$$

$$5 \times 1 + 1.5 = 6.5$$

$$6.5 \times 1.5 + 2 = 9.75 + 2 = 11.75, \text{ not } \mathbf{11}$$

$$11.75 \times 2 + 2.5 = 23.5 + 2.5 = 26$$

$$26 \times 2.5 + 3 = 68$$

- 145.** (3) The pattern of the number series is :

$$586 + 1 = 587$$

$$587 + (1 - 2) = 587 - 1 = 586$$

$$586 + (-1 - 4) = 586 - 5 = 581$$

$$581 + (-5 - 6) = 581 - 11 = 570$$

$$570 + (-11 - 8) = 570 - 19 = 551$$

$$551 + (-19 - 10) = 551 - 29 = 522$$

- 146.** (5) The pattern of the number series is :

$$64 - 10 = 54$$

$$54 + 15 = 69$$

$$69 - 20 = 49$$

$$49 + 25 = 74$$

$$74 - 30 = 44$$

$$44 + 35 = \mathbf{79}$$

- 147.** (2) The pattern of the number series is :

$$(4000 - 2) + 8 = 2008$$

$$(2008 - 2) + 8 = 1012$$

$$(1012 - 2) + 8 = \mathbf{514}$$

$$(514 - 2) + 8 = 265$$

- 148.** (3) The pattern of the number series is :

$$5 \times 1 = 5$$

$$5 \times 3 = 15$$

$$15 \times 5 = 75$$

$$75 \times 7 = \mathbf{525}$$

$$525 \times 9 = 4725$$

- 149.** (1) The pattern of the number series is :

$$52 \times \frac{1}{2} = 26$$

$$26 \times 1 = 26$$

$$26 \times \frac{3}{2} = 39$$

$$39 \times 2 = 78$$

$$78 \times \frac{5}{2} = \mathbf{195}$$

- 150.** (3) The pattern of the number series is :

$$14 - 10 = 4$$

$$25 - 14 = 11 = 4 \times 3 - 1$$

$$55 - 25 = 30 = 11 \times 3 - 3$$

$$140 - 55 = 85 = 30 \times 3 - 5$$

$$? = 140 + 85 \times 3 - 7 =$$

$$140 + 248 = \mathbf{388}$$

- 151.** (5) The pattern of the number series is :

$$119 + 1 \times 12 = 131$$

$$131 + 2 \times 12 = 155$$

$$155 + 3 \times 12 = 191$$

$$191 + 4 \times 12 = 239$$

$$239 + 5 \times 12 = \mathbf{299}$$

- 152.** (4) The pattern of the number series is :

$$11 + 1 \times 46 = 11 + 46 = 57$$

$$57 + 2 \times 46 = 57 + 92 = 149$$

$$149 + 2 \times 92 = 149 + 184 = 333$$

$$333 + 2 \times 184 = 333 + 368 = 701$$

$$701 + 2 \times 368 = 701 + 736 = \mathbf{1437}$$

- 153.** (2) The pattern of the number series is :

$$697 - 553 = 144 = 12^2$$

$$553 - 453 = 100 = 10^2$$

$$453 - 389 = 64 = 8^2$$

$$389 - 353 = 36 = 6^2$$

$$? = 353 - 4^2 = 353 - 16 = \mathbf{337}$$

- 154.** (1) The pattern of the number series is :

$$336 - 224 = 112$$

$$224 - 168 = 56$$

$$168 - 140 = 28$$

$$140 - 126 = 14$$

$$? = 126 - 7 = 119$$

- 155.** (2) The pattern of the number series is :

$$9 \times 2 - 3 = 18 - 3 = 15$$

$$15 \times 2 - 3 = 30 - 3 = 27$$

$$27 \times 2 - 3 = 54 - 3 = 51$$

$$51 \times 2 - 3 = 102 - 3 = 99$$

$$99 \times 2 - 3 = 198 - 3 = \mathbf{195}$$

- 156.** (4) The pattern of the number series is :

$$13 + 8 = 21$$

$$21 + 8 + 7 = 21 + 15 = 36$$

$$36 + 15 + 7 = 36 + 22 = 58$$

$$58 + 22 + 7 = 58 + 29 = 87$$

$$87 + 29 + 7 = 87 + 36 = \mathbf{123}$$

**157.** (4) The pattern of the number series is :

$$7 + 2 + 0 = 9$$

$$9 + (2 + 8) = 19$$

$$19 + (10 + 16) = 45$$

$$45 + (26 + 24) = 95$$

$$95 + (50 + 32) = \mathbf{177}$$

**158.** (1) The pattern of the number series is :

$$14 + 1^2 = 15$$

$$15 + 2^3 = 23$$

$$23 + 3^2 = 32$$

$$32 + 4^3 = 96$$

$$96 + 5^2 = 96 + 25 = \mathbf{121}$$

**159.** (3) The pattern of the number series is :

$$20 + 1 \times 4 = 20 + 4 = 24$$

$$24 + 3 \times 4 = 24 + 12 = 36$$

$$36 + 5 \times 4 = 36 + 20 = 56$$

$$56 + 7 \times 4 = 56 + 28 = 84$$

$$84 + 9 \times 4 = 84 + 36 = \mathbf{120}$$

**160.** (2) The pattern of the number series is :

$$732 - 3 = 729 = 9^3$$

$$1244 - 732 = 512 = 8^3$$

$$1587 - 1244 = 343 = 7^3$$

$$1803 - 1587 = 216 = 6^3$$

$$1928 - 1803 = 125 = 5^3$$

$$? = 1928 + 4^3 = 1928 + 64 = \mathbf{1992}$$

**161.** (4) The pattern of the number series is :

$$16 \times 1.5 = 24$$

$$24 \times 2.5 = \mathbf{60}$$

$$60 \times 3.5 = 210$$

$$210 \times 4.5 = 945$$

**162.** (1) The pattern of the number series is :

$$(45030 \ 5) - 6 = 9000$$

$$(9000 \ 5) - 5 = 1795$$

$$(1795 \ 5) - 4 = 355$$

$$(355 \ 5) - 3 = 68$$

$$(68 \ 5) - 2 = 13.6 - 2 = \mathbf{11.6}$$

**163.** (1) The pattern of the number series is :

$$5 \times 1 + 1 \times 7 = 12$$

$$12 \times 2 + 2 \times 6 = 36$$

$$36 \times 3 + 3 \times 5 = 123$$

$$123 \times 4 + 4 \times 4 = 492 + 16 = \mathbf{508}$$

$$508 \times 5 + 5 \times 3 = 2540 + 15 = 2555$$

**164.** (4) The pattern of the number series is :

$$8 \times 0.5 + 7 = 4 + 7 = 11$$

$$11 \times 1 + 6 = 17$$

$$17 \times 1.5 + 5 = 25.5 + 5 = \mathbf{30.5}$$

$$30.5 \times 2 + 4 = 61 + 4 = 65$$

**165.** (5) The pattern of the number series is : **174.** (5) The pattern of the number series is :

$$389 - 117 = 272$$

$$525 - 389 = 136$$

$$593 - 525 = 68$$

$$627 - 593 = 34$$

$$? = 627 + 17 = \mathbf{644}$$

**166.** (4) The pattern of the number series is :

$$7 + 1 \times 4 = 11$$

$$11 + (1 + 2) \times 4 = 11 + 3 \times 4 = 23$$

$$23 + (3 + 4) \times 4 = 23 + 7 \times 4 = 51$$

$$51 + (7 + 6) \times 4 = 51 + 13 \times 4 = 103$$

$$103 + (13 + 8) \times 4 = 103 + 21 \times 4 = \mathbf{187}$$

**167.** (4) The pattern of the number series is :

$$18 + 9 = 27$$

$$27 + (9 + 13) = 49$$

$$49 + (9 + 26) = 84$$

$$84 + (9 + 39) = 132$$

**168.** (2) The pattern of the number series is :

$$33 + 10 = 43$$

$$43 + (10 + 12) = 65$$

$$65 + (10 + 24) = 99$$

$$99 + (10 + 36) = 145$$

$$145 + (10 + 48) = \mathbf{203}$$

**169.** (5) The pattern of the number series is :

$$655 - 439 = 216 = 6^3$$

$$439 - 314 = 125 = 5^3$$

$$314 - 250 = 64 = 4^3$$

$$250 - 223 = 27 = 3^3$$

$$? = 223 - 2^3 = 223 - 8$$

$$= \mathbf{215}$$

**170.** (4) The pattern of the number series is :

$$15 + 6 = 21$$

$$21 + 18 (= 6 + 12) = 39$$

$$39 + 38 (= 18 + 20) = 77$$

$$77 + 66 (= 38 + 28) = 143$$

$$143 + 102 (= 66 + 36) = \mathbf{245}$$

**171.** (1) The pattern of the number series is :

$$33 + 6 = 39$$

$$39 + 18 (= 6 + 12) = 57$$

$$57 + 30 (= 18 + 12) = 87$$

$$87 + 42 (= 30 + 12) = 129$$

$$129 + 54 (= 42 + 12) = \mathbf{183}$$

**172.** (1) The pattern of the number series is :

$$19 - 15 = 4 = 2^2$$

$$83 - 19 = 64 = 4^3$$

$$119 - 83 = 36 = 6^2$$

$$631 - 119 = 512 = 8^3$$

$$? = 631 + 10^2 = 631 + 100 = \mathbf{731}$$

**173.** (3) The pattern of the number series is :

$$19 + 1 \times 7 = 19 + 7 = 26$$

$$26 + 2 \times 7 = 26 + 14 = 40$$

$$40 + 4 \times 7 = 40 + 28 = 68$$

$$68 + 8 \times 7 = 68 + 56 = 124$$

$$124 + 16 \times 7 = 124 + 112$$

$$= \mathbf{236}$$

**174.** (5) The pattern of the number series is :

$$69 - 43 = 26$$

$$58 - 69 = -11$$

$$84 - 58 = 26$$

$$73 - 84 = -11$$

$$? = 73 + 26 = \mathbf{99}$$

- 175.** (4) The pattern of the number series is :

$$15 + 3 = 18$$

$$18 - 2 = 16$$

$$16 + 3 = 19$$

$$19 - 2 = 17$$

$$17 + 3 = 20$$

$$20 - 2 = \mathbf{18}$$

- 176.** (1) The pattern of the number series is :

$$1050 \times \frac{2}{5} = 420$$

$$420 \times \frac{2}{5} = 168$$

$$168 \times \frac{2}{5} = 67.2$$

$$10.752 \times \frac{2}{5} = \mathbf{4.3008}$$

- 177.** (5) The pattern of the number series is :

$$0 + 1 \times 6 = 6$$

$$6 + 2 \times 9 = 24$$

$$24 + 3 \times 12 = 60$$

$$60 + 4 \times 15 = 120$$

$$120 + 5 \times 18 = 210$$

$$210 + 6 \times 21 = 210 + 126 = \mathbf{336}$$

- 178.** (3) The pattern of the number series is :

$$32 + 1 \times 17 = 32 + 17 = 49$$

$$49 + 2 \times 17 = 49 + 34 = 83$$

$$83 + 4 \times 17 = 83 + 68 = 151$$

$$151 + 8 \times 17 = 151 + 136 = 287$$

$$287 + 16 \times 17 = 287 + 272 = 559$$

$$559 + 32 \times 17 = 559 + 544 = \mathbf{1103}$$

- 179.** (2) The pattern of the number series is :

$$552 - 462 = 90$$

$$650 - 552 = 98$$

$$756 - 650 = 106$$

$$870 - 756 = 114$$

$$992 - 870 = 122$$

$$? = 992 + 130 = \mathbf{1122}$$

- 180.** (3) The pattern of the number series is :

$$28 + 11 = 39$$

$$39 + 24 (= 11 + 13) = 63$$

$$63 + 39 (= 24 + 15) = 102$$

$$102 + 56 (= 39 + 17) = 158$$

$$158 + 75 (= 56 + 19) = \mathbf{233}$$

- 181.** (5) The pattern of the number series is :

$$7 + 3^2 = 7 + 9 = 16$$

$$16 + 5^3 = 16 + 125 = 141$$

$$141 + 7^2 = 141 + 49 = 190$$

$$190 + 9^3 = 190 + 729 = 919$$

$$919 + 11^2 = 919 + 121 = \mathbf{1040}$$

- 182.** (3) The pattern of the number series is :

$$12 + 5 \times 1 = 17$$

$$17 + 5 \times 3 = 32$$

$$32 + 5 \times 5 = 57$$

$$57 + 5 \times 7 = 92$$

$$92 + 5 \times 9 = 137$$

- 183.** (4) The pattern of the number series is :

$$19 + 2 \times 3 = 19 + 6 = 25$$

$$25 + 4 \times 5 = 25 + 20 = 45$$

$$45 + 6 \times 7 = 45 + 42 = 87$$

$$87 + 8 \times 9 = 87 + 72 = 159$$

$$159 + 10 \times 11 = 159 + 110 = \mathbf{269}$$

- 184.** (5) The pattern of the number series is :

$$83 + 41 \times 1 = 124$$

$$124 + 41 \times 2 = 124 + 82 = 206$$

$$206 + 41 \times 4 = 206 + 164 = 370$$

$$370 + 41 \times 8 = 370 + 328 = 698$$

$$698 + 41 \times 16 = 698 + 656 = \mathbf{1354}$$

- 185.** (4) The pattern of the number series is :

$$1 \times 7 = 7$$

$$7 \times 7 = 49$$

$$49 \times 7 = 343$$

$$343 \times 7 = \mathbf{2401}$$

- 186.** (4) The pattern of the number series is :

$$13 + 7 = 20$$

$$20 + 19 (= 7 + 12) = 39$$

$$39 + 39 (= 19 + 20) = 78$$

$$78 + 67 (= 39 + 28) = 145$$

$$145 + 103 (= 67 + 36) = \mathbf{248}$$

- 187.** (1) The pattern of the number series is :

$$12 + 1 \times 23 = 35$$

$$35 + 2 \times 23 = 35 + 46 = 81$$

$$81 + 2 \times 46 = 81 + 92 = 173$$

$$173 + 2 \times 92 = 173 + 184 = 357$$

$$357 + 2 \times 184 = 357 + 368 = \mathbf{725}$$

- 188.** (5) The pattern of the number series is :

$$3 + 97 = 100$$

$$100 + 197 = 297$$

$$297 + 297 = 594$$

$$594 + 397 = 991$$

$$991 + 497 = \mathbf{1488}$$

- 189.** (3) The pattern of the number series is :

$$112 + 1 \times 7 = 119$$

$$119 + 3 \times 7 = 119 + 21 = 140$$

$$140 + 5 \times 7 = 140 + 35 = 175$$

$$175 + 7 \times 7 = 175 + 49 = 224$$

$$224 + 9 \times 7 = 224 + 63 = \mathbf{287}$$

- 190.** (2) The pattern of the number series is :

$$958 - 833 = 125$$

$$833 - 733 = 100$$

$$733 - 658 = 75$$

$$658 - 608 = 50$$

$$? = 608 - 25 = \mathbf{583}$$

- 191.** (4) The pattern of the number series is :

$$11 \times 1 - 1 = 10$$

$$10 \times 2 - 2 = 18$$

$$18 \times 3 - 3 = 51$$



$$51 \times 4 - 4 = 200$$

$$200 \times 5 - 5 = \mathbf{995}$$

- 192.** (1) The pattern of the number series is :  
 $25 \times 2 - 2 = 50 - 2 = 48$   
 $48 \times 2 - 2 = 96 - 2 = 94$

$$94 \times 2 - 2 = 188 - 2 = 186$$

$$186 \times 2 - 2 = 372 - 2 = 370$$

$$370 \times 2 - 2 = 740 - 2 = \mathbf{738}$$

- 193.** (2) The pattern of the number series is :  
 $14 + 10 = 24$

$$24 + 19 (=10 + 9) = 43$$

$$43 + 28 (= 19 + 9) = 71$$

$$71 + 37 (= 28 + 9) = 108$$

$$108 + 46 (=37 + 9) = \mathbf{154}$$

- 194.** (5) The pattern of the number series is :  
 $144 + 29 = 173$

$$173 - 33 = 140$$

$$140 + 29 = 169$$

$$169 - 33 = 136$$

$$136 + 29 = \mathbf{165}$$

- 195.** (2) The pattern of the number series is :  
 $8 + 2 = 10$

$$10 + 8 (= 2 \times 3 + 2) = 18$$

$$18 + 26 (= 3 \times 8 + 2) = 44$$

$$44 + 80 (=3 \times 26 + 2) = 124$$

$$124 + 242 (= 3 \times 80 + 2) = \mathbf{366}$$

- 196.** (4) The pattern of the number series is :  
 $13 + 1 \times 12 = 13 + 12 = 25$   
 $25 + 3 \times 12 = 25 + 36 = 61$

$$61 + 5 \times 12 = 61 + 60 = 121$$

$$121 + 7 \times 12 = 121 + 84 = 205$$

$$205 + 9 \times 12 = 205 + 108 =$$

$$\mathbf{313}$$

- 197.** (1) The pattern of the number series is :

$$\frac{656}{2} + 24 = 328 + 24 = 352$$

$$\frac{352}{2} + 24 = 176 + 24 = 200$$

$$\frac{200}{2} + 24 = 100 + 24 = 124$$

$$\frac{124}{2} + 24 = 62 + 24 = 86$$

$$\frac{86}{2} + 24 = 43 + 24 = \mathbf{67}$$

- 198.** (3) The pattern of the number series is :

$$454 + 18 = 472$$

$$472 - 27 = 445$$

$$445 + 18 = 463$$

$$463 - 27 = 436$$

$$436 + 18 = \mathbf{454}$$

- 199.** (2) The pattern of the number series is :

$$12 \times 4 - 30 = 48 - 30 = 18$$

$$18 \times 4 - 36 = 72 - 36 = 36$$

$$36 \times 4 - 42 = 144 - 42 = 102$$

$$102 \times 4 - 48 = 408 - 48 = 360$$

$$360 \times 4 - 54 = 1440 - 54 = \mathbf{1386}$$

- 200.** (4) The pattern of the number series is :

$$7 \times 2 - 2 = 12$$

$$12 \times 4 - (2 + 6) = 48 - 8 = 40$$

$$40 \times 6 - (8 + 10) = 240 - 18 = 222$$

$$222 \times 8 - (18 + 14) = 1776 - 32 =$$

$$1744 \mathbf{1742}$$

$$1744 \times 10 - (32 + 18) = 17440 - 50 = 17390$$

- 201.** (3) The pattern of the number series is :

$$6 \times 7 + 7^2 = 42 + 49 = 91$$

$$91 \times 6 + 6^2 = 546 + 36 = 582$$

$$582 \times 5 + 5^2 = 2910 + 25 = 2935$$

$$2935 \times 4 + 4^2 = 11740 + 16 = 11756$$

$$11756 \times 3 + 3^2 = 35268 + 9 = 35277$$

- 202.** (5) The pattern of the number series is :

$$9050 - 15^3 = 9050 - 3375 = 5675$$

$$5675 - 13^3 = 5675 - 2197 = 3478$$

$$3478 - 11^3 = 3478 - 1331 = 2147$$

$$2147 - 9^3 = 2147 - 729 = 1418$$

$$1418 - 7^3 = 1418 - 343 = 1075 \mathbf{1077}$$

- 203.** (4) The pattern of the number series is :

$$1 = 1$$

$$2^2 = 4$$

$$3^3 = 27 \mathbf{25}$$

$$4^4 = 256$$

$$5^5 = 3125$$

$$6^6 = 46656$$

- 204.** (2) The pattern of the number series is :

$$8424 \quad 2 = 4212$$

$$4212 \quad 2 = 2106$$

$$2106 \quad 2 = 1053 \mathbf{1051}$$

$$1053 \quad 2 = 526.5$$

$$526.5 \quad 2 = 263.25$$

- 205.** (1) The pattern is :

$$5531 - 5506 = 25 = 5^2$$

$$5555 - 5506 = 49 = 7^2$$

$$5506 - 5425 = 81 = 9^2$$

$$5425 - 5304 = 121 = 11^2$$

$$5304 - 5135 = 169 = 13^2$$

$$5135 - 4910 = 225 = 15^2$$

$$4910 - 4621 = 289 = 17^2$$

Clearly, 5531 is wrong which should be substituted by 5555.

- 206.** (2) The pattern is :

$$6 + 1 = 7$$

$$7 + 1 \times 2 = 9$$

$$9 + 2 \times 2 = 13$$

$$13 + 8 = 21 \mathbf{26}$$

$$21 + 16 = 37$$

$$37 + 32 = 69$$

- 207.** (4) The pattern is :

$$1 \times 1 + 2 = 3$$

$$3 \times 2 + 4 = 10$$

$$10 \times 3 + 6 = 36$$

$$36 \times 4 + 8 = 152$$

$$152 \times 5 + 10 = 770 \quad \mathbf{760}$$

$$770 \times 6 + 12 = 4632$$

**208.** (3) The pattern is :

$$4 + 1^3 = 5$$

$$5 + 2^3 = 13$$

$$13 + 3^3 = 40$$

$$40 + 4^3 = 104 \quad \mathbf{105}$$

$$104 + 5^3 = 229$$

$$229 + 6^3 = 445$$

**209.** (1) The pattern is :

$$157.5 \quad 3.5 = 45$$

$$45 \quad 3 = 15$$

$$15 \quad 2.5 = 6$$

$$6 \quad 2 = 3$$

$$3 \quad 1.5 = 2$$

$$2 \quad 1 = 2 \quad \mathbf{1}$$

**210.** (2) The pattern is :

$$123 + 11 \times 14 = 123 + 154 = 277$$

$$277 + 13 \times 14 = 277 + 182 = 459$$

$$459 + 15 \times 14 = 459 + 210 = 669$$

$$669 + 17 \times 14 = 669 + 238 = 907$$

$$907 + 19 \times 14 = 907 + 266$$

$$= \mathbf{1173}$$

**211.** (2) The pattern is :

$$456.5 - 407 = 49.5$$

$$407 - 368.5 = 38.5$$

$$368.5 - 341 = 27.5$$

$$341 - 324.5 = 16.5$$

$$? = 324.5 - 5.5 = \mathbf{319}$$

**212.** (1) The pattern is :

$$23 + 1 \times 19.2 = 42.2$$

$$42.2 + 2 \times 19.2 = 80.6$$

$$80.6 + 4 \times 19.2 = 157.4$$

$$157.4 + 8 \times 19.2 = 311$$

$$311 + 16 \times 19.2 = 311 + 307.2$$

$$= \mathbf{618.2}$$

**213.** (5) The pattern is :

$$154 - 36 = 118$$

$$232 - 154 = 78$$

$$278 - 232 = 46$$

$$300 - 278 = 22$$

$$? - 300 = 6$$

$$? = \mathbf{306}$$

**214.** (4) The pattern is ;

$$24 + 8^3 = 24 + 512 = 536$$

$$536 - 7^2 = 536 - 49 = 487$$

$$487 + 6^3 = 487 + 216 = 703$$

$$703 - 5^2 = 703 - 25 = 678$$

$$678 + 4^3 = 678 + 64 = 742$$

**215.** (3) The pattern is :

$$576 - 224 = 352$$

$$752 - 576 = 176$$

$$840 - 752 = 88$$

$$884 - 840 = 44$$

$$? = 884 + 22 = \mathbf{906}$$

**216.** (1) The pattern is :

$$5 \times 1 + 1^2 = 5 + 1 = 6$$

$$6 \times 2 + 2^2 = 12 + 4 = 16$$

$$16 \times 3 + 3^2 = 48 + 9 = 57$$

$$57 \times 4 + 4^2 = 228 + 16 = \mathbf{244}$$

**217.** (4) The pattern is :

$$12 \times 4 = \mathbf{48}$$

$$48 \times 3.5 = 168$$

$$168 \times 3 = 504$$

$$504 \times 2.5 = 1260$$

$$1260 \times 2 = 2520$$

**218.** (5) The pattern is :

$$4 \times 2 + 1 = 8 + 1 = 9$$

$$9 \times 3 + 2 = 27 + 2 = 29$$

$$29 \times 4 + 3 = 116 + 3 = \mathbf{119}$$

$$119 \times 5 + 4 = 595 + 4 = 599$$

$$599 \times 6 + 5 = 3594 + 5 = 3599$$

**219.** (3) The pattern is :

$$177 - 7 = 170$$

$$170 - 11 = 159$$

$$159 - 13 = 146$$

$$146 - 17 = \mathbf{129}$$

$$129 - 19 = 110$$

Note : Consecutive prime numbers have been subtracted.

**220.** (3) The pattern is :

$$2 + 1^3 = 2 + 1 = 3$$

$$3 + 2^3 = 3 + 8 = 11$$

$$11 + 3^3 = 11 + 27 = 38$$

$$38 + 4^3 = 38 + 64 = 102$$

$$102 + 5^3 = 102 + 125 = \mathbf{227}$$

**221.** (1) The pattern of the number series is :

$$21 \times 0.5 = 10.5$$

$$10.5 \times 1 = \mathbf{10.5}$$

$$10.5 \times 1.5 = 15.75$$

$$15.75 \times 2 = 31.50$$

$$31.50 \times 2.5 = 78.75$$

**222.** (2) The pattern of the number series is :

$$6 + 1 \times 13 = 6 + 13 = 19$$

$$19 + 3 \times 13 = 19 + 39 = 58$$

$$58 + 5 \times 13 = 58 + 65 = \mathbf{123}$$

$$123 + 7 \times 13 = 123 + 91 = 214$$

$$214 + 9 \times 13 = 214 + 117 = 331$$

**223.** (3) The pattern of the number series is :

$$\mathbf{14} + 1 \times 2 = \mathbf{16}$$

$$16 + 3 \times 4 = 16 + 12 = 28$$

$$28 + 5 \times 6 = 28 + 30 = 58$$

$$58 + 7 \times 8 = 58 + 56 = 114$$

$$114 + 9 \times 10 = 114 + 90 = 204$$

**224.** (4) The pattern of the number series is :

$$13.76 + 1 \times 1.15 = 14.91$$

$$14.91 + 2 \times 1.15 = 14 + 2.30 = 17.21$$

$$17.21 + 3 \times 1.15 = 17.21 + 3.45 = 20.66$$

$$20.66 + 4 \times 1.15 = 20.66 + 4.60 = \mathbf{25.26}$$

$$25.26 + 5 \times 1.15 = 25.26 + 5.75 = 31.01$$

**225.** (5) The pattern of the number series is :

$$15 + 1^2 = \mathbf{16}$$

$$16 + 2^3 = 16 + 8 = 24$$

$$24 + 3^2 = 24 + 9 = 33$$

$$33 + 4^3 = 33 + 64 = 97$$

$$97 + 5^2 = 97 + 25 = 122$$

**226.** (5) The pattern is :

$$2 \times 3 = 6$$

$$6 \times 2.5 = 15$$

$$15 \times 2 = 30$$

$$30 \times 1.5 = 45$$

$$45 \times 1 = 45 \quad \mathbf{43.5}$$

$$45 \times 0.5 = 22.5$$

**227.** (3) The pattern is :

$$950 - 661 = 289 = 17^2$$

$$661 - 436 = 225 = 15^2$$

$$436 - \mathbf{269} = 167 \quad 13^2$$

$$436 - 267 = 169 = 13^2$$

$$267 - 146 = 121 = 11^2$$

$$146 - 65 = 81 = 9^2$$

**228.** (5) The pattern is :

$$6.5 + 5.3 = 11.8$$

$$11.8 + 2 \times 5.3 = 11.8 + 10.6 = 22.4$$

$$22.4 + 3 \times 5.3 = 22.4 + 15.9 = 38.3$$

$$38.3 + 4 \times 5.3 = 38.3 + 21.2 = 59.5$$

$$59.5 + 5 \times 5.3 = 59.5 + 26.5 = 86$$

**87.3**

$$86 + 6 \times 5.3 = 86 + 31.8 = 117.8$$

**229.** (5) The pattern is :

$$1 \times 3 - 1 = 2$$

$$2 \times 3 - 2 = 4$$

$$4 \times 3 - 3 = 9$$

$$9 \times 3 - 4 = 23$$

$$23 \times 3 - 5 = 69 - 5 = 64 \quad \mathbf{69}$$

$$64 \times 3 - 6 = 192 - 6 = 186$$

**230.** (5) The pattern is :

$$250 - 11 = 239$$

$$239 - (11 \times 2 + 1) = 239 - 23 = 216$$

$$216 - (11 \times 3 + 2) = 216 - 35 = 181$$

$$181 - (11 \times 4 + 3) = 181 - 47 = 134 \quad \mathbf{136}$$

$$134 - (11 \times 5 + 4) = 134 - 59 = 75$$

$$75 - (11 \times 6 + 5) = 75 - 71 = 4$$

### SBI PO EXAMS

**1.** (3) The series is based on following pattern:

$$3 \times 1 + 2 = 5$$

$$5 \times 2 + 2 = 12$$

$$12 \times 3 + 2 = 38$$

$$38 \times 4 + 2 = 154$$

$$154 \times 5 + 2 = \mathbf{772}$$

$$772 \times 6 + 2 = 4634$$

Therefore, the number 914 is wrong.  
According to question, the new series is as follows:

$$914 \times 1 + 2 = 916$$

$$916 \times 2 + 2 = \mathbf{1834}$$

$$1834 \times 3 + 2 = 5504$$

Therefore, the required number is 1834.

**2.** (3) The series is based on following pattern :

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

$$4 \times 2 + 2 = 10$$

$$10 \times 3 + 3 = \mathbf{33}$$

$$33 \times 4 + 4 = 136$$

$$136 \times 5 + 5 = 685$$

$$685 \times 6 + 6 = 4116$$

Therefore, the number 34 is wrong.  
According to question, the new series starts from the number 34 in the same pattern.

$$34 \times 1 + 1 = 35$$

$$35 \times 2 + 2 = \mathbf{72}$$

Hence, the number 72 is required answer.

**3.** (4) The series is based on following pattern :

$$214 - (14)^2 = 18$$

$$18 + (12)^2 = 162$$

$$162 - (10)^2 = 62$$

$$62 + (8)^2 = \mathbf{126}$$

$$126 - (6)^2 = 90$$

$$90 + (4)^2 = 106$$

Therefore the number 143 is wrong.  
According to question, the new series starts from the number 143 in

$$143 - (14)^2 = -53$$

$$-53 + (12)^2 = \mathbf{91}$$

Hence, the number 91 is required answer.

**4.** (5) The series is based on following pattern:

$$160 \times 0.5 = 80$$

$$80 \times 1.5 = 120$$

$$120 \times 2.5 = \mathbf{300}$$

$$300 \times 3.5 = 1050$$

$$1050 \times 4.5 = 4725$$

$$4725 \times 5.5 = 25987.5$$

Therefore, the number 180 is wrong.  
According to question, the new series starts from the number 180 in the same pattern:

$$180 \times 0.5 = 90$$

$$90 \times 1.5 = \mathbf{135}$$

Hence, the number 135 is required answer.

**5.** (1) The series is based on following pattern:

$$2 + 1^2 - 0 = 3$$

$$3 + 2^2 - 1 = \mathbf{6}$$

$$6 + 3^2 - 2 = 13$$

$$13 + 4^2 - 3 = 26$$

$$26 + 5^2 - 4 = 47$$

$47 + 6^2 - 5 = 78$

Therefore, the number 7 is wrong. According to question, the new series starts from the number 7 in the same pattern.

$7 + 1^1 - 0 = 8$

$8 + 2^2 - 1 = 11$

Hence, the number 11 is required answer.

6. (4) The series is based on following pattern :

$2 \times 1 + 1^2 = 3$

$3 \times 2 + 2^2 = 10$

$10 \times 3 + 3^2 = 39$

$39 \times 4 + 4^2 = 172$

$172 \times 5 + 5^2 = 885$

Similarly, the new series is as follows :

$1 \times 1 + 1^2 = 2 \dots (a)$

$2 \times 2 + 2^2 = 8 \dots (b)$

$8 \times 3 + 3^2 = 33 \dots (c)$

Therefore, the number 8 will come in place of (b).

7. (2) The series is based on the following pattern:

$5 \times 1 + 2 = 7$

$7 \times 2 - 4 = 10$

$10 \times 3 + 6 = 36$

$36 \times 4 - 8 = 136$

$136 \times 5 + 10 = 690$

Similarly, the new series is as follows:

$2 \times 1 + 2 = 4 \dots (a)$

$4 \times 2 - 4 = 4 \dots (b)$

$4 \times 3 + 6 = 18 \dots (c)$

$18 \times 4 - 8 = 64 \dots (d)$

$64 \times 5 + 10 = 330 \dots (e)$

Therefore, the number 330 will come in place of (e).

8. (5) The series is based on following pattern:

$8 \times 0.5 = 4$

$4 \times 1.5 = 6$

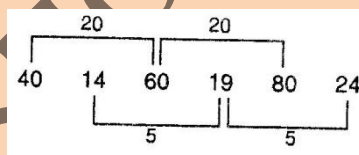
$6 \times 2.5 = 15$

$15 \times 3.5 = 52.6$

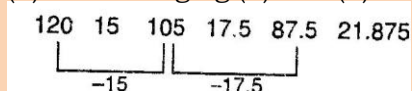
$52.5 \times 4.5 = 236.25$

Therefore, the number 236.25 will come in place of (d).

9. (3) Interchanging (3) and (5)



10. (3) Interchanging (3) and (5)



11. (4) The series is based on following pattern

$2 \times 1 + (1)^2 = 3$

$3 \times 2 - (2)^2 = 2$

$2 \times 3 + (3)^2 = 15$

$15 \times 4 - (4)^2 = 44$

$44 \times 5 + (5)^2 = 245$

$245 \times 6 - (6)^2 = 1434$

Similarly,

$3 \times 1 + (1)^2 = 4 \dots (a)$

$4 \times 2 - (2)^2 = 4 \dots (b)$

$4 \times 3 + (3)^2 = 21 \dots (c)$

$21 \times 4 - (4)^2 = 68 \dots (d)$

Therefore, the 21 will come in place of (c).

12. (5) The series is based on following pattern

$1 \times 1 + (1)^2 = 2$

$2 \times 2 + (2)^2 = 8$

$8 \times 3 + (3)^2 = 33$

$33 \times 4 + (4)^2 = 148$

$148 \times 5 + (5)^2 = 765$

$765 \times 6 + (6)^2 = 4626$

Similarly,

$2 \times 1 + (1)^2 = 3 \dots (a)$

$3 \times 2 + (2)^2 = 10 \dots (b)$

$10 \times 3 + (3)^2 = 39 \dots (c)$

$39 \times 4 + (4)^2 = 172 \dots (d)$

Therefore, the number 172 will come in place of (d).

13. (5) The series is based on following pattern :

$2 \times 2 + 0.5 = 4.5$

$4.5 \times 2 + (0.5) \times 4 = 11$

$11 \times 2 + 2 \times 4 = 30$

$30 \times 2 + 8 \times 4 = 92$

$92 \times 2 + 32 \times 4 = 312$

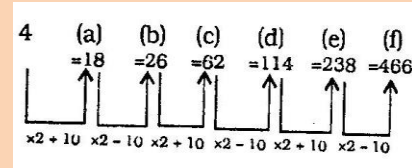
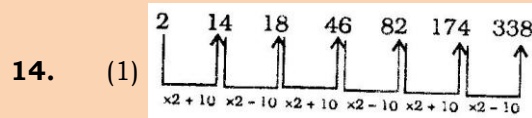
$312 \times 2 + 128 \times 4 = 1136$

Similarly,

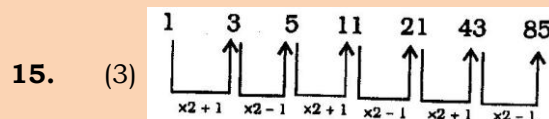
$1 \times 2 + 0.5 = 2.5 \dots (a)$

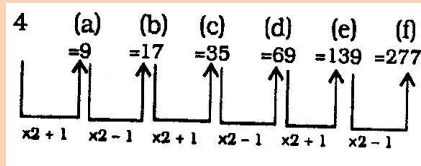
$2.5 \times 2 + (0.5) \times 4 = 7 \dots (b)$

Therefore, the number 7 will come in place of (b)



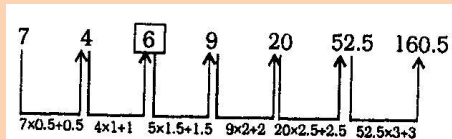
In the given series 176 should be replaced by 174. 238 will come in place of (e)





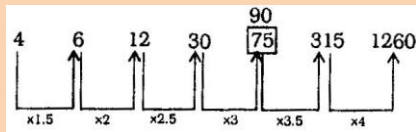
In the given series 7 should be replaced by 5. and 277 should come in place of (f).

16. (1) The given number series is based on the following pattern



Hence the wrong number is 6

17. (2) The given number series is based on the following pattern:



Hence, the wrong number is 75

18. (4) The given number series is based on the following pattern

$$4 - 3 = 1^2$$

$$13 - 4 = 9 = 3^2$$

$$38 - 13 = 25 = 5^2$$

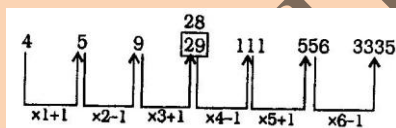
$$87 - 38 = 49 = 7^2$$

$$168 - 87 = 81 = 9^2$$

$$289 - 168 = 121 = 11^2$$

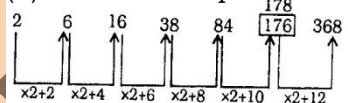
Obviously, 166 is the wrong number.

19. (3) The number series follows the rule as mentioned below:



Hence 29 is the wrong number.

20. (5) The followed pattern is:



Hence the wrong number is 176

21. (4) The given series is based on the following pattern

$$2 \times 3 = 6$$

$$6 \times 3 = 18$$

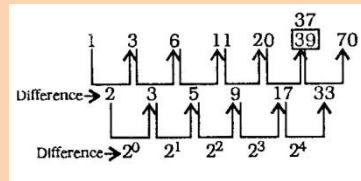
$$18 \times 6 = 109 \text{ but } 108$$

$$108 \times 18 = 1944$$

$$1944 \times 108 = 209952$$

Obviously, 109 is the wrong number and it should be replaced with 108.

22. (2) The given series is based on the following pattern :



Obviously, 39 is the wrong number and it should be replaced with 37.

23. (1) The given series is based on the following pattern :

$$2 \times 2 + 7 = 11 \text{ (not } 13)$$

$$11 \times 3 - 6 = 27$$

$$27 \times 4 + 5 = 113$$

$$113 \times 5 - 4 = 561$$

Obviously the number 13 is wrong and it should be replaced with 11.

24. (4) The given series is based on the following pattern.

$$50 + (1^2) = 51$$

$$51 - (2^2) = 47$$

$$47 + (3^2) = 56$$

$$56 - (4^2) = 40 \text{ (not } 42)$$

$$40 + (5^2) = 65$$

Obviously, the number 42 is wrong and it should be replaced with 40.

25. (3) The given series is based on the following pattern :

$$3 \times 2 + 3 = 9$$

$$9 \times 3 - 4 = 23$$

$$23 \times 4 + 5 = 97 \text{ (not } 99)$$

$$97 \times 5 - 6 = 479$$

Obviously, the number 99 is wrong and it should be replaced with 97.

26. (1) The given series is based on the following pattern:

$$2 + 3 = 5$$

$$5 + 3 = 8$$

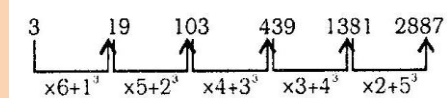
$$8 + 5 = 13$$

$$13 + 8 = 21$$

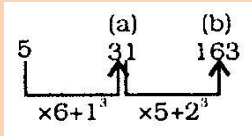
$$21 + 13 = 34$$

Obviously, the number 4 is wrong and it should be replaced with 3.

27. (2) The given series is based on the following pattern :



Similarly,



Hence, 163 will come in place of (b).

28. (1) The given series is based on the following pattern

$$13 = 4 \times 1 + 1 \times 9$$

$$40 = 13 \times 2 + 2 \times 7$$

$$135 = 40 \times 3 + 3 \times 5$$

$$552 = 135 \times 4 + 4 \times 3$$

$$2765 = 552 \times 5 + 5 \times 1$$

Similarly,

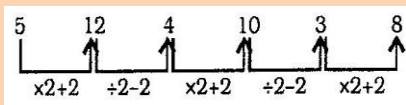
$$(a) = 2 \times 1 + 1 \times 9 = 11$$

$$(b) = 11 \times 2 + 2 \times 7 = 36$$

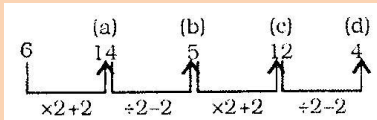
$$(c) = 36 \times 3 + 3 \times 5 = 123$$

Hence, 123 will come in place of (c).

29. (3) The given series is based on the following pattern:

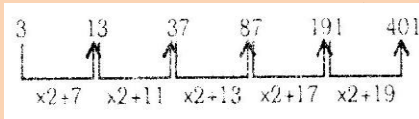


Similarly,



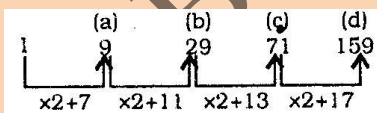
Hence, 4 will come in place of (d).

30. (4) The given series is based on the following pattern :



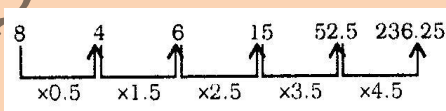
7, 11, 13, 17, 19 (.... are consecutive prime numbers)

Similarly,

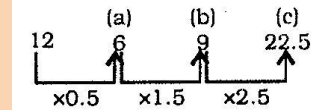


Hence, 159 will come in place of (d).

31. (3) The given series is based on the following pattern :



Similarly,



Hence, 22.5 will come in place of (c).

32. (3) The given series is based on the following pattern :

$$9 \times 2 + 1.5 = 19.5$$

$$19.5 \times 2 + 2 = 41$$

$$41 \times 2 + 2.5 = 84.5$$

Therefore, the new series is as follows :

$$12 \times 2 + 1.5 = 25.5 \quad \dots(a)$$

$$25.5 \times 2 + 2 = 53 \quad \dots(b)$$

$$53 \times 2 + 2.5 = \mathbf{108.5} \quad \dots(c)$$

$$108.5 \times 2 + 3 = 220 \quad \dots(d)$$

$$220 \times 2 + 3.5 = 443.5 \quad \dots(e)$$

Therefore, the number 108.5 will come in place of (C) in the new series.

33. (1) The series is based on following pattern:

$$4 \times 1 + 1 = 5$$

$$+ 3$$

$$5 \times 4 + 2 = 22$$

$$+ 5$$

$$22 \times 9 + 3 = 201$$

Similarly the new series is as follows :

$$7 \times 1 + 1 = 8 \quad \dots(a)$$

$$8 \times 4 + 2 = 34 \quad \dots(b)$$

$$34 \times 9 + 3 = 309 \quad \dots(c)$$

$$309 \times 16 + 4 = \mathbf{4948} \quad \dots(d)$$

Therefore, the number 4948 will come in place of (d) in the new series.

34. (2) The series is based on following pattern :

$$5 \times 1 + 0.25 \times 1 = 5.25$$

$$+ 3$$

$$5.25 \times 2 + 0.25 \times 4 = 11.5$$

$$+ 5$$

$$11.5 \times 3 + 0.25 \times 9 = 36.75$$

Similarly, the new series is as follows.

$$3 \times 1 + 0.25 \times 1 = 3.25 \quad \dots(a)$$

$$3.25 \times 2 + 0.25 \times 4 = 7.5 \quad \dots(b)$$

$$7.5 \times 3 + 0.25 \times 9 = \mathbf{24.75} \quad \dots(c)$$

Therefore, the number 24.75 will come in place of (c) in the new series.

35. (4) The series is based on following pattern :

$$38 \times 0.5 = 19$$

$$19 \times 1.5 = 28.5$$

$$28.5 \times 2.5 = 71.25$$

Similarly, the new series is as follows :

$$18 \times 0.5 = 9 \quad \dots(a)$$

$$9 \times 1.5 = 13.5 \quad \dots(b)$$

$$13.5 \times 2.5 = 33.75 \quad \dots(c)$$

$$33.75 \times 3.5 = \mathbf{118.125} \quad \dots(d)$$

Therefore, the number 118.125 will come

in place of (d) in the new series.

36. (3) The series is based on following pattern:  $25 + (11)^2$   $25 + 121 = 146$   $146 - (9)^2$   $146 - 81 = 65$

$$65 + (7)^2 \quad 65 + 49 = 114$$

Similarly, the new series is as follows :

$$39 + (11)^2 \quad 39 + 121$$

$$= 190 \dots\dots(a)$$

$$160 - (9)^2 \quad 160 - 81$$

$$= 79 \dots\dots(b)$$

$$79 + (7)^2 \quad 79 + 49$$

$$= 128 \dots\dots(c)$$

$$128 + (5)^2 \quad 128 + 25$$

$$= 153 \dots\dots(d)$$

$$103 + (3)^2 \quad 103 + 9$$

$$= 112 \dots\dots(e)$$

Therefore, the number 112 will come in place of (e) in new series.

37. (1) The given series is based on following pattern

$$15 - 10 = 5$$

$$24 - 15 = 9$$

$$37 - 24 = 13$$

$$54 - 37 = 17$$

$$75 - 54 = 21$$

$$100 - 75 = 25$$

Obviously, 35 is wrong number.

38. (5) Here the middle number = difference of succeeding number and preceding number. i.e.,  $4 - 1 = 3$

$$7 - 3 = 4$$

$$11 - 4 = 7$$

$$18 - 7 = 11$$

$$27 - 11 = 16$$

Here the sequence gets disturbed

$$29 - 11 = 18$$

$$47 - 18 = 29$$

Hence, 27 is the wrong number.

39. (5) The sequence is based on following pattern:

$$3 \times 0.5 + 0.5 = 2$$

$$2 \times 1 + 1 = 3$$

$$3 \times 1.5 + 1.5 = 6$$

$$6 \times 2 + 2 = 14$$

$$14 \times 2.5 + 2.5 = 37.5$$

$$37.5 \times 3 + 3 = 115.5$$

Obviously, 12 is the wrong number.

40. (4)  $32431 = 7 \times 4626 + 7^2$

$$4626 = 6 \times 765 + 6^2$$

$$765 = 5 \times 148 + 5^2$$

$$148 = 4 \times 32 + 4^2$$

$$\text{But } 148 = 4 \times 33 +$$

$$4^2 \quad 33 = 3 \times 8 + 3^2$$

$$8 = 2 \times 2 + 2^2$$

Obviously 32 is the wrong number.

41. (2) The sequence is based on following pattern:

$$3 - 2 = 1^3$$

$$11 - 3 = 8 = 2^3$$

$$38 - 11 = 27 = 3^3$$

$$102 - 38 = 64 =$$

$$4^3 \text{ But,}$$

$$229 - 102 = 127 \quad 5^3$$

$$227 - 102 = 125 = 5^3$$

$$443 - 227 = 216 = 6^3$$

Obviously 229 is the wrong number.

42. (5) The given number series is based on the following pattern :

$$7413 + 9 \times 1 = 7422$$

$$7422 + 9 \times 2 = 7440$$

$$7440 + 9 \times 3 = 7467$$

$$7467 + 9 \times 4 = 7503$$

Hence, 7467 will replace the question mark.

43. (4) The given number series is based on the following pattern :

$$4 = 2^2 ; 16 = 4^2 ;$$

$$36 = 6^2 ; 64 = 8^2$$

$$; 100 = 10^2.$$

$$? = 12^2 = 144$$

Hence, 144 will replace the question mark.

44. (1) The given number series is based on the following pattern:

$$12 \times 3 - 3 = 33$$

$$33 \times 3 - 3 = 96$$

$$96 \times 3 - 3 = 285$$

$$285 \times 3 - 3 = 852$$

Hence, 285 will replace the question mark.

45. (3) The given number series is based on the following pattern :

$$70000 \quad 5 = 14000$$

$$14000 \quad 5 = 2800$$

$$2800 \quad 5 = 560$$

$$560 \quad 5 = 112$$

$$112 \quad 5 = 22.4$$

Hence, 560 will replace the question mark.

46. (2) The given number series is based on the following pattern :

$$102 - 3 = 99$$

$$99 + 5 = 104$$

$$104 - 7 = 97$$

$$97 + 9 = 106$$

$$106 - 11 = 95$$

Hence, 95 will replace the question mark.

47. (4) The given number series is based on the following pattern

$$93 + 2 \text{ (prime number)} = 95$$

$$95 + 3 = 98 \quad 99$$

$$98 + 5 = 103$$

$$103 + 7 = 110$$

$$110 + 11 = 121$$

$$121 + 13 = 134$$

Hence, 103 will replace the question mark

48. (5) The given number series is based on the following pattern:

$$8 \times 1.5 = 12$$

$$12 \times 1.5 = 18$$

$$18 \times 1.5 = 27 \quad 26$$

$$27 \times 1.5 = 40.5$$

$$40.5 \times 1.5 = 60.75$$

$$? = 60.75 \times 1.5 = \mathbf{91.125}$$

Hence, 91.125 will replace the question mark.

49. (5) The given number series is based on the following pattern :  $4 + 7 = 11$

$$11 + 7 = 18$$

$$18 + 11 = 29 \quad 28$$

$$? = 29 + 18 = \mathbf{47}$$

Hence, 47 will replace the question mark.

50. (1) The given number series is based on the following pattern:

$$3 \times 2 + 2^2 = 10$$

$$10 \times 3 + 3^2 = \mathbf{39}$$

$$39 \times 4 + 4^2 = 172$$

$$172 \times 5 + 5^2 = 885 \quad 886$$

$$885 \times 6 + 6^2 = 5346$$

Hence, 39 will replace the question mark.

51. (3) The given number series is based on the following pattern :

$$15 \times 1 + 1 \times 7 = 22$$

$$22 \times 2 + 2 \times 6 = 56 \quad 57 \quad 56$$

$$\times 3 + 3 \times 5 = 183$$

$$183 \times 4 + 4 \times 4 = \mathbf{748}$$

$$748 \times 5 + 5 \times 3 = 3755$$

$$3755 \times 6 + 6 \times 2 = 22542$$

Hence, 748 will replace the question mark.

52. (4) The pattern of the number series is :

$$3601 \quad 1 + 1 = 3602$$

$$3602 \quad 2 + 2 - 1801 + 2 = 1803$$

$$1803 \quad 3 + 3 - 601 + 3 - 604$$

$$604 \quad 4 + 4 = 151 + 4 = 155 \quad \mathbf{154} \quad 155$$

$$5 + 5 = 31 + 5 = 36 \quad 36 \quad 6 + 6 = 6 + 6$$

$$= 12$$

53. (2) The pattern of the number series is :

$$4 \times 2 + 2^2 = 8 + 4 = 12$$

$$12 \times 3 + 3^2 = 36 + 9 = 45 \quad \mathbf{42}$$

$$45 \times 4 + 4^2 = 180 + 16 = 196$$

$$196 \times 5 + 5^2 = 980 + 25 = 1005$$

$$1005 \times 6 + 6^2 = 6030 + 36 = 6066$$

54. (1) The pattern of the number series is :

$$2 + 4 = 6 \quad \mathbf{8}$$

$$6 + 6 = 12$$

$$12 + 8 = 20$$

$$20 + 10 = 30$$

$$30 + 12 = 42$$

55. (5) The pattern of the number series is :

$$32 \times \frac{1}{2} = 16$$

$$16 \times \frac{3}{2} = 24$$

$$24 \times \frac{5}{2} = 60 \quad \mathbf{65}$$

$$60 \times \frac{7}{2} = 210$$

$$210 \times \frac{9}{2} = 945$$

$$945 \times \frac{11}{2} = 5197.5$$

56. (4) The pattern of the number series is :

$$7 \times 2 - 1 = 14 - 1 = 13$$

$$13 \times 2 - 1 = 26 - 1 = 25$$

$$25 \times 2 - 1 = 50 - 1 = 49$$

$$49 \times 2 - 1 = 98 - 1 = 97$$

$$97 \times 2 - 1 = 194 - 1 = 193 \quad \mathbf{194}$$

$$193 \times 2 - 1 = 386 - 1 = 385$$

57. (1) The pattern of the given series is :

$$37 \times 0.5 + 0.5 = 18.5 + 0.5 = 19 \quad 19 \times$$

$$1 + 1 = 19 + 1 - 20$$

$$20 \times 1.5 + 1.5 = 30 + 1.5 = 31.5$$

$$31.5 \times 2 + 2 = 63 + 2 = 65$$

$$65 \times 2.5 + 2.5 = 162.5 + 2.5 = 165$$

Similarly,

$$21 \times 0.5 + 0.5 = 10.5 + 0.5 = 11 \text{ (a)}$$

$$11 \times 1 + 1 = 11 + 1 = 12 \text{ (b)}$$

$$12 \times 1.5 + 1.5 = 18 + 1.5 = 19.5 \text{ (c)}$$

$$19.5 \times 2 + 2 = 39 + 2 = 41 \text{ (d)}$$

$$41 \times 2.5 + 2.5 = 102.5 + 2.5 = \mathbf{105} \text{ (e)}$$

58. (2) The pattern of the given series is :

$$5 \times 1 + 1^2 = 5 + 1 = 6$$

$$6 \times 2 + 2^2 = 12 + 4 = 16$$

$$16 \times 3 + 3^2 = 48 + 9 = 57$$

$$57 \times 4 + 4^2 = 228 + 16 = 244$$

$$244 \times 5 + 5^2 = 1220 + 25 =$$

1245 Similarly,

$$9 \times 1 + 1^2 = 9 + 1 = 10 \text{ (a)}$$

$$11 \times 2 + 2^2 = 22 + 4 = 26 \text{ (b)}$$

$$26 \times 3 + 3^2 = 78 + 9 = 87 \text{ (c)}$$

$$87 \times 4 + 4^2 = 348 + 16 = \mathbf{364} \text{ (d)}$$

59. (3) The pattern of the given series is :

$$7 \times 1 - 2 = 7 - 2 = 5$$

$$5 \times 3 - 4 = 15 - 4 = 11$$

$$11 \times 5 - 6 = 55 - 6 = 49$$

$$49 \times 7 - 8 = 343 - 8 = 335$$

$$335 \times 9 - 10 = 3015 - 10 = 3005$$

Similarly,



$13 \times 1 - 2 = 13 - 2 = 11$  (a)

$11 \times 3 - 4 = 33 - 4 = 29$  (b)

60. (4) The pattern of the given series is :

$12 \times 3 + 11 = 36 + 11 = 47$

$47 \times 3 + 11 = 141 + 11 = 152$

$152 \times 3 + 11 = 456 + 11 = 467$

$467 \times 3 + 11 = 1401 + 11 = 1412$

$1412 \times 3 + 11 = 4236 + 11 = 4247$

Similarly,

$33 \times 3 + 11 = 99 + 11 = 110$  (a)

$110 \times 3 + 11 = 330 + 11 = 341$  (b)

$341 \times 3 + 11 = 1023 + 11 = 1034$  (c)

$1034 \times 3 + 11 = 3102 + 11$

$= 3113$  (d)

61. (5) The pattern of the given series is :

$68 \times 1 - 8 = 60$

$60 \times 1.5 + 14 = 90 + 14 = 104$

$104 \times 2 - 20 = 208 - 20 = 188$

$188 \times 2.5 + 26 = 470 + 26 = 496$

$496 \times 3 - 32 = 1488 - 32 = 1456$

Similarly,

$42 \times 1 - 8 = 42 - 8 = 34$  (a)

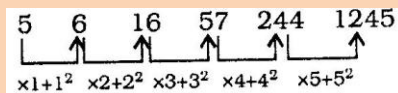
$34 \times 1.5 + 14 = 51 + 14 = 65$  (b)

$65 \times 2 - 20 = 130 - 20 = 110$  (c)

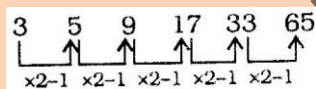
$110 \times 2.5 + 26 = 275 + 26 = 301$  (d)

**RBI GRADE-B OFFICER EXAMS**

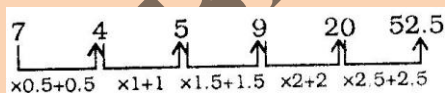
1. (4) The given series is based on the following pattern:



2. (5) The given series is based on the following pattern:

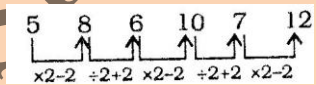


3. (3) The given series is based on the following pattern:

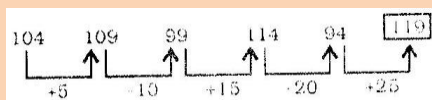


4. (2) 30 (According to question)

5. (1) The given series is based on the following pattern:

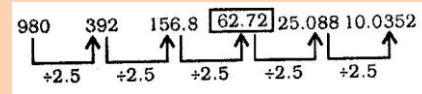


6. (5) The given series is based on the following pattern:



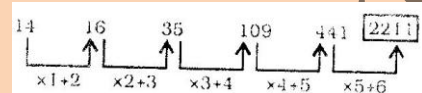
Hence, 119 will come in place of the question mark.

7. (3) The given series is based on the following pattern :



Hence, 62.72 will come in place of the question mark.

8. (4) The given series is based on the following pattern :



Hence, 2211 will come in place of the question mark.

9. (1) The given series is based on the following pattern:

Numbers are cubes of consecutive prime numbers. i.e.

$11^3 = 1331$

$13^3 = 2197$

$17^3 = 4913$

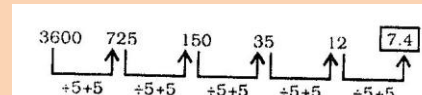
$19^3 = 6859$

$23^3 = 12167$

$29^3 = 24389$

Hence, 12167 will come in place of the question mark.

10. (2) The given series is based on the following pattern



Hence, 7.4 will come in place of the question mark.

11. (3) The given number series is based on the following pattern :

$13 \times 1 + 1 = 14$

$14 \times 2 + 2 = 30$

$30 \times 3 + 3 = 93$

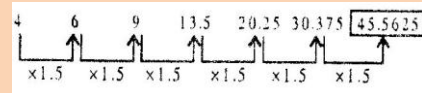
$93 \times 4 + 4 = 376$

$376 \times 5 + 5 = 1885$

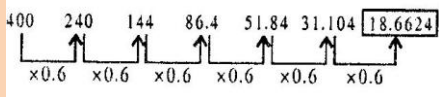
$? = 1885 \times 6 + 6 = 11316$

Hence, number 11316 will replace the question mark.

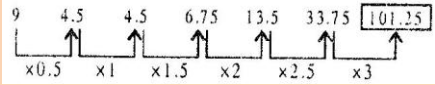
12. (2)



13. (4)



14. (1)



15. (5)

$$705 + 1 \times 23 = 728$$

$$728 + 2 \times 23 = 774$$

$$774 + 3 \times 23 = 843$$

$$843 + 4 \times 23 = 935$$

$$935 + 5 \times 23 = 1050$$

$$? = 1050 + 6 \times 23 = 1050 + 138 = 1188$$

16. (4) The pattern of the given series is :

$$5 \times 1.5 + 1.5 = 7.5 + 1.5 = 9$$

$$9 \times 2.5 + 2.5 = 22.5 + 2.5 = 25$$

$$25 \times 3.5 + 3.5 = 87.5 + 3.5 = 91$$

$$91 \times 4.5 + 4.5 = 409.5 + 4.5 = 414$$

Similarly,

(a)  $3 \times 1.5 + 1.5 = 4.5 + 1.5 = 6$

(b)  $6 \times 2.5 + 2.5 = 15 + 2.5 = 17.5$

(c)  $17.5 \times 3.5 + 3.5 = 61.25 + 3.5 = 64.75$

17. (2) The pattern of the given series is :

$$15 \times 1 - 1 \times 6 = 15 - 6 = 9$$

$$9 \times 2 - 2 \times 5 = 18 - 10 = 8$$

$$8 \times 3 - 3 \times 4 = 24 - 12 = 12$$

$$12 \times 4 - 4 \times 3 = 48 - 12 = 36$$

$$36 \times 5 - 5 \times 2 = 180 - 10 = 170$$

Similarly,

(a)  $19 \times 1 - 1 \times 6 = 19 - 6 = 13$

(b)  $13 \times 2 - 2 \times 5 = 26 - 10 = 16$

18. (1) The pattern of the given series is :

$$7 \times 1 - 1 = 6$$

$$6 \times 2 - 2 = 10$$

$$10 \times 3 - 3 = 27$$

$$27 \times 4 - 4 = 104$$

$$104 \times 5 - 5 = 515$$

Similarly,

(a)  $9 \times 1 - 1 = 8$

(b)  $8 \times 2 - 2 = 14$

(c)  $14 \times 3 - 3 = 39$

(d)  $39 \times 4 - 4 = 152$

19. (5) The pattern of the given series is :

$$6 \times 2 + 2^2 = 12 + 4 = 16$$

$$16 \times 3 + 3^2 = 48 + 9 = 57$$

$$57 \times 4 + 4^2 = 228 + 16 = 244$$

Similarly,

(a)  $4 \times 2 + 2^2 = 8 + 4 = 12$

(b)  $12 \times 3 + 3^2 = 36 + 9 = 45$

(c)  $45 \times 4 + 4^2 = 180 + 16 = 196$

- 20.

(d)  $196 \times 5 + 5^2 = 980 + 25 = 1005$

(3) The pattern of the given series is :

$$8 \times 1 + 1 = 9$$

$$9 \times 2 + 2 = 20$$

$$20 \times 3 + 3 = 63$$

$$63 \times 4 + 4 = 256$$

Similarly,

(a)  $5 \times 1 + 1 = 6$

(b)  $6 \times 2 + 2 = 14$

(c)  $14 \times 3 + 3 = 45$

(d)  $45 \times 4 + 4 = 184$

(e)  $184 \times 5 + 5 = 925$

- 21.

(3) The pattern of the number series is :

$$4 \times 0.5 + 1 = 2 + 1 = 3$$

$$3 \times 1 + 1.5 = 3 + 1.5 = 4.5$$

$$4.5 \times 1.5 + 2 = 6.75 + 2 = 8.75$$

**8.5**

$$8.75 \times 2 + 2.5 = 17.5 + 2.5 = 20$$

$$20 \times 2.5 + 3 = 50 + 3 = 53$$

- 22.

(2) The pattern of the number series is :

$$12000 - 5 = 2400 - 5 = 2395$$

$$2395 - 5 = 479 - 5 = 474$$

**472**

$$474 - 5 = 94.8 - 5 = 89.8$$

$$89.8 - 5 = 17.96 - 5 = 12.96$$

- 23.

(5) The pattern of the number series is :

$$1 \times 1 + 7 \times 1 = 1 + 7 = 8$$

$$8 \times 2 + 6 \times 2 = 16 + 12 = 28$$

$$28 \times 3 + 5 \times 3 = 84 + 15 = 99$$

$$99 \times 4 + 4 \times 4 = 396 + 16 = 412$$

$$412 \times 5 + 3 \times 5 = 2060 + 15 = 2075$$

$$2075 \times 6 + 2 \times 6 = 12450 + 12 = 12462$$

**12460**

- 24.

(1) The pattern of the number series is :

$$144 \times 1.5 = 216$$

**215**

$$216 \times 2.5 = 540$$

$$540 \times 3.5 = 1890$$

$$1890 \times 4.5 = 8505$$

$$8505 \times 5.5 = 46777.5$$

- 25.

(5) The pattern of the number series is :

$$2222 - 7^3 = 2222 - 343 = 1879$$

$$1879 - 7^3 = 1879 - 343 = 1538$$

$$1538 - 7^3 = 1538 - 343 = 1195$$

$$1195 - 7^3 = 1195 - 343 = 852$$

$$852 - 7^3 = 852 - 343 = 509$$

$$509 - 7^3 = 509 - 343 = 166$$

**166**

- 26.

(4) The pattern is :

$$2^3 + 1^2 = 9$$

$$3^3 + 2^2 = 31$$

$$4^3 + 3^2 = 73$$

$$5^3 + 4^2 = 141$$

$$6^3 + 5^2 = 241$$

- 27.

(4) The pattern is :

$$35 + 221 = 256$$

$$256 + (221 - 26) = 451$$

$$451 + 169 (=195 - 26) = 620$$

$$620 + 143 (=169 - 26) = 763$$

$$763 + 117 = \mathbf{880}$$

28. (3) The pattern is :

$$130 + 3^2 = 139$$

$$139 + 4^2 = 155$$

$$155 + 5^2 = 180$$

$$180 + 6^2 = 216$$

$$216 + 7^2 = \mathbf{265}$$

29. (2) The pattern is :

$$658 + 72 = 730$$

$$730 + 144 = 874$$

$$874 + 288 = 1162$$

$$1162 + 576 = \mathbf{1738}$$

30. (2) The pattern is :

$$14 + 990 = 1004$$

$$1004 + \frac{990}{5} = 1202$$

$$1202 + \frac{198}{4} = 1251.5$$

$$1251.5 + 16.5 \times \frac{49.5}{3} = 1268$$

$$1268 + 8.25 = \mathbf{1276.25}$$

31. (3) The pattern is :

$$576 - 224 = 352$$

$$752 - 576 = 176$$

$$840 - 752 = 88$$

$$884 - 840 = 44$$

$$? = 884 + 22 = \mathbf{906}$$

32. (4) The pattern is :

$$55 + 11.15 = 66.15$$

$$66.15 + 2 \times 11.15 = 88.45$$

$$88.45 + 3 \times 11.15 = 121.9$$

$$121.9 + 4 \times 11.15 = 166.5$$

$$166.5 + 5 \times 11.15 = 166.5 + 55.75 = \mathbf{222.25}$$

33. (5) The pattern is

$$36 + 13 = 49$$

$$49 + 2 \times 13 = 75$$

$$75 + 13 = 88$$

$$88 + 2 \times 13 = 114$$

$$114 + 13 = \mathbf{127}$$

### INSURANCE EXAMS

1. (2) The series is based on following pattern :

$$3 + 4 \times (2)^0 = 7$$

$$7 + 11 = 18$$

$$18 + 4 \times (2)^1 = 26$$

$$26 + 11 = \mathbf{37}$$

$$37 + 4 \times (2)^2 = 53$$

$$53 + 11 = 64$$

$$64 + 4 \times (2)^3 = 96$$

Therefore, the number 37 will come in place of question mark (?) in the series.

2. (3) The series is based on following pattern :

$$1.7 + 1.5 = 3.2$$

$$3.2 - 0.5 = 2.7$$

$$2.7 + 1.5 = 4.2$$

$$4.2 - 0.5 = 3.7$$

$$3.7 + 1.5 = \mathbf{5.2}$$

$$5.2 - 0.5 = 4.7$$

$$4.7 + 1.5 = 6.2$$

Therefore, the number 5.2 will come in place of question mark (?) in the series.

3. (3) The original series is based on following pattern:

$$\frac{1}{8 \times \frac{1}{2}} = 4$$

$$4 \times 1 = 4$$

$$4 \times 1.5 = 6$$

$$6 \times 2 = 12$$

$$12 \times 2.5 = 30$$

$$30 \times 3 = 90$$

Therefore, the number 28 is wrong. Hence, the new series is as follows:

$$28 \times \frac{1}{2} = 14 \quad \dots 2^{\text{nd}} \text{ term}$$

$$14 \times 1 = 14 \quad \dots 3^{\text{rd}} \text{ term}$$

$$14 \times 1.5 = \mathbf{21 - 4^{\text{th}} \text{ term}}$$

$$21 \times 2 = 42$$

Therefore, the fourth term of new series is 21.

4. (2) The original series is based on following pattern:

$$17 + 0.25 \times (1)^2 = 17.25$$

$$17.25 + 0.25 \times (2)^2 = 18.25$$

$$18.25 + 0.25 \times (3)^2 = \mathbf{20.50}$$

$$20.50 + 0.25 \times (4)^2 = 24.50$$

$$24.50 + 0.25 \times (5)^2 = 30.75$$

Therefore, the number 20.75 is wrong.

Hence, the new series is as follows:

$$20.75 + 0.25 \times 1^2 = 21.00 \quad \dots 2^{\text{nd}} \text{ term}$$

$$21.00 + 0.25 \times (2)^2 = 22.00 \quad \dots 3^{\text{rd}} \text{ term}$$

$$22.00 + 0.25 \times (3)^2 = 24.25 \quad \dots 4^{\text{th}} \text{ term}$$

Therefore, the fourth term of the new series is 24.25.

5. (1) The original series is based on following pattern:

$$438 + (7)^2 = 487$$

$$487 - (6)^2 = \mathbf{451}$$

$$451 + (5)^2 = 476$$

$$476 + (4)^2 = 460$$

$$460 + (3)^2 = 469$$

Therefore, the number 447 is wrong.

Hence the new series is as follows:

$$447 + (7)^2 = 496 \text{ .....2nd term}$$

$$496 - (6)^2 = 460 \text{ .....3rd term}$$

$$460 + (5)^2 = \mathbf{485 - 4th term}$$

$$485 - (4)^2 = 469$$

Therefore, the fourth term of the new series is 485.

6. (5) The original series is based on following pattern:

$$2 \times 2 + 3 = 7$$

$$7 \times 2 + 5 = \mathbf{19}$$

$$19 \times 2 + 7 = 45$$

$$45 \times 2 + 9 = 99$$

$$99 \times 2 + 11 = 209$$

$$209 \times 2 + 13 = 431$$

Therefore, the number 18 is wrong.

Hence, the new series is as follows:

$$18 \times 2 + 3 = 39 \quad \text{--- 2nd term}$$

$$39 \times 2 + 5 = 83 \quad \text{--- 3rd term}$$

$$83 \times 2 + 7 = \mathbf{173 - 4th term}$$

$$173 \times 2 + 9 = 355$$

Therefore, the fourth term of the new series is 173,

7. (4) The original series is based on following pattern:

$$6 \times 1 + 1 \times 2 = 8$$

$$8 \times 2 - 2 \times 3 = 10$$

$$10 \times 3 + 3 \times 4 = 42$$

$$42 \times 4 - 4 \times 5 = 148$$

$$148 \times 5 + 5 \times 6 = 770$$

$$770 \times 6 - 6 \times 7 = 4578$$

Therefore, the number 146 is wrong.

Hence, the new series is as follows:

$$146 \times 1 + 1 \times 2 = 148$$

$$= \text{2nd term}$$

$$148 \times 2 - 2 \times 3$$

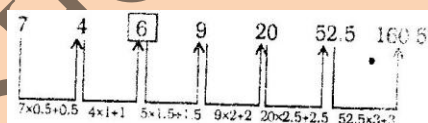
$$= 290 \text{ -- 3rd term}$$

$$290 \times 3 + 3 \times 4$$

$$= \mathbf{882 - 4th term}$$

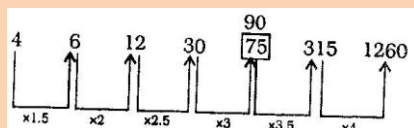
Therefore, the fourth term of the new series is 882.

8. (1) The given number series is based on the following pattern



Hence the wrong number is 6.

9. (2) The given number series is based on the following pattern :



Hence, the wrong number is 75.

10. (4) The given number series is based on the following pattern:

$$4 - 3 = 1^2$$

$$13 - 4 = 9 = 3^2$$

$$38 - 13 = 25 = 5^2$$

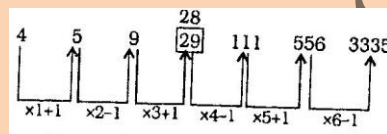
$$87 - 38 = 49 = 7^2$$

$$168 - 87 = 81 = 9^2$$

$$289 - 168 = 121 = 11^2$$

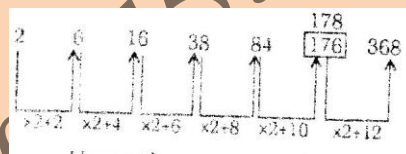
Obviously, 166 is the wrong number.

11. (3) The number series follows the rule as mentioned below:



Hence 29 is the wrong number.

12. (5) The followed pattern is :



Hence the wrong number is 176.

13. (5) The pattern of the number series is :

$$3 + 7^2 = 3 + 49 = 52$$

$$52 + 6^2 = 52 + 36 = 88$$

$$88 + 5^2 = 88 + 25 = 113$$

$$113 + 4^2 = 113 + 16 = 129$$

$$129 + 3^2 = 129 + 9 = \mathbf{138}$$

14. (3) The pattern of the number series is :

$$2 \times 1 + 1 = 52$$

$$3 \times 2 + 2 = 8$$

$$8 \times 3 + 3 = \mathbf{27}$$

$$27 \times 4 + 4 = 112$$

$$112 \times 5 + 5 = 565$$

15. (1) The pattern of the number series is :

$$6 \times 0.5 + 1 = 4$$

$$4 \times 1.5 + 2 = 8$$

$$8 \times 2.5 + 3 = 23$$

$$23 \times 3.5 + 4 = \mathbf{84.5}$$

$$84.5 \times 4.5 + 5 = 385.25$$

16. (4) The pattern of the number series is :

$$2^3 = 8;$$

$$4^3 = 64$$

$$6^3 = 216;$$

$$8^3 = 512$$

$$10^3 = \mathbf{1000};$$

$$12^3 = 1728$$

17. (2) The pattern of the number series is :

$$5 \times 1 + 1 \times 6 = 11$$

$$11 \times 2 + 2 \times 5 = 32$$

$$32 \times 3 + 3 \times 4 = 108$$

$$108 \times 4 + 4 \times 3 = 444$$

$$444 \times 5 + 5 \times 2 = \mathbf{2230}$$

18. (3)  $S = (1^2 - 2^2) + (3^2 - 4^2) + (5^2 - 6^2) + \dots$  to 100 terms

$$\begin{aligned}
 &= -3 - 7 - 11 - 15 - \dots \text{ to } 100 \text{ terms} \\
 &= - (3 + 7 + 11 + 15 + \dots \text{ to } 100 \text{ terms}) \\
 &= \frac{-100}{2} [2 \times 3 + (100 - 1)4]
 \end{aligned}$$

$$\begin{aligned}
 S_n &= \frac{n}{2} [2a + (n - 1)d] \\
 &= \frac{-100}{2} [2 \times 3 + (100 - 1)4] \\
 &= -50 \times 402 = -20100
 \end{aligned}$$

19. (3) Tricky approach

$$\begin{aligned}
 &3 \quad \quad \quad 5 \quad 7 \quad \quad \quad 17 \quad \quad 19 \\
 &4 + \overline{36} + \overline{44} \dots + \overline{5184} + \overline{8100} \\
 &= 1 - \frac{1}{4} + \frac{1}{9} - \frac{1}{9} + \frac{1}{9} - \frac{1}{1681} \dots + \frac{1}{9} - \frac{1}{100}
 \end{aligned}$$

$$\begin{aligned}
 &1 - \frac{1}{100} = \frac{99}{100} = 0.99
 \end{aligned}$$

20. (4) The pattern is :

$$\begin{aligned}
 8 + 6 &= 14 \\
 14 + 18 & (= 6 + 12) = 32 \\
 32 + 38 & (= 18 + 20) = 70 \\
 70 + 66 & (= 38 + 28) = 136 \\
 136 + 102 & (= 66 + 36) = 238
 \end{aligned}$$

21. (1) The pattern is :

$$\begin{aligned}
 25 + 1 \times 16 &= 41 \\
 41 + 3 \times 16 &= 41 + 48 = 89 \\
 89 + 5 \times 16 &= 89 + 80 = 169 \\
 169 + 7 \times 16 &= 169 + 112 = 281 \\
 281 + 9 \times 16 &= 281 + 144 = 425
 \end{aligned}$$

22. (2) The pattern is :

$$\begin{aligned}
 461 + 13 &= 474 \\
 474 - 9 &= 465 \\
 465 + 13 &= 478 \\
 478 - 9 &= 469
 \end{aligned}$$

$$469 + 13 = 482$$

23. (5) The pattern is :

$$\begin{aligned}
 (980 \div 2) + 26 &= 516 \\
 (516 \div 2) + 26 &= 284 \\
 (284 \div 2) + 26 &= 168 \\
 (168 \div 2) + 26 &= 110 \\
 (110 \div 2) + 26 &= 81
 \end{aligned}$$

24. (5) The pattern is :

$$\begin{aligned}
 4 + 0 &= 4 \\
 4 + 6 &= 10 \\
 10 + 24 & (= 6 + 18) = 34 \\
 34 + 60 & (= 6 + 54) = 94 \\
 94 + 168 & (= 6 + 162) = 262
 \end{aligned}$$

25. (1) Expression =

$$\begin{aligned}
 &(1 + 7 + 13 + 19 + \dots + 61) + (3 - 5 + 9 - 11 + \dots + 63 - 65) \\
 &= (1 + 7 + 13 + \dots + 61) - 2 \times 11 \\
 \text{First Part} &= 1 + 7 + 13 + \dots + 61 \\
 t_n &= a + (n - 1)d
 \end{aligned}$$

$$61 = 1 + (n - 1)d$$

$$61 - 1 = (n - 1)6$$

$$(n - 1)6 = 60$$

$$n - 1 = 10$$

$$n = 11$$

$$S_n = \frac{n}{2} a l = \frac{11}{2} \times 1 \times 61 = 341$$

$$\text{Expression} = 341 - 22 = 319$$

$$\begin{aligned}
 26. \quad (1) \quad x &= 1 \cdot \frac{1}{2} + 2 \cdot \frac{1}{3} + 3 \cdot \frac{1}{4} + \dots + 7 \cdot \frac{1}{8} + 7 \cdot \frac{1}{9} \\
 &= 1 \cdot \frac{1}{-2+2} + 1 \cdot \frac{1}{-3+3} + 1 \cdot \frac{1}{-4+4} + \dots + 1 \cdot \frac{1}{-6+6} + 1 \cdot \frac{1}{-7+7}
 \end{aligned}$$

$$\frac{1}{8} + \frac{1}{7 \cdot 9}$$

$$= 1 - \frac{1}{8} + \frac{1}{63}$$

$$= \frac{504}{8 \cdot 63} = \frac{449}{504}$$

$$= \frac{1}{449} \cdot 1.1$$

27. (4)

$$1 - \frac{1}{2^2} + \frac{1}{3^2} - \frac{1}{4^2} + \dots + 1 - \frac{1}{2011^2}$$

$$\frac{x}{2 \cdot 2011}$$

$$1 - \frac{1}{2^2} + \frac{1}{3^2} - \frac{1}{4^2} + \dots + 1 - \frac{1}{2011^2}$$

$$= \frac{1}{5} - \frac{1}{5^2} + \frac{1}{2011} - \frac{1}{2011^2}$$

$$= \frac{x}{2 \cdot 2011}$$

$$\frac{1}{2} \times \frac{3}{2} \times \frac{2}{3} \times \frac{4}{3} \times \frac{3}{4} \times \frac{5}{4} \times \frac{4}{5} \times \frac{6}{5} \dots$$

$$\frac{2010}{2011} \times \frac{2012}{2011} = \frac{x}{2 \cdot 2011}$$

$$\frac{1}{2} \times \frac{2012}{2011} = \frac{x}{2 \cdot 2011}$$

$$x = 2012$$

(2) The pattern is :

$$\frac{1050 \cdot 30}{2} = 510$$

$$\frac{510 \ 26}{2} = 242$$

$$\frac{242 \ 22}{2} = 100 \frac{1}{06}$$

$$\frac{110 \ 18}{2} = 46$$

$$\frac{46 \ 14}{2}$$

29. (1) The pattern is  
 $550 - 2^2 = 550 - 4 = 546$   
 $546 - 3^2 = 546 - 9 = 537$   
 $537 - 4^2 = 537 - 16 = 521$   
 $521 - 5^2 = 521 - 25 = 496$   
**494**

30. (3) The pattern is ;  
 $8 + 1 \times 13 = 21$   
 $21 + 2 \times 13 = 21 + 26 = 47$   
 $47 + 3 \times 13 = 47 + 39 = 86$   
 $86 + 4 \times 13 = 86 + 52 =$   
**138 140**

- $138 + 5 \times 13 = 138 + 65 = 203$   
 $203 + 6 \times 13 = 203 + 78 = 281$

- 31 (2) The pattern is ;  
 $4 \times 8 - 8 = 32 - 8 = 24$   
 $24 \times 7 - 7 = 168 - 7 = 161$   
 $161 \times 6 - 6 = 966 - 6 =$   
**960 965**

32. (3) The pattern is :  
 $1 \times 2 = 2$   
 $2 \times 3 = 6 \ 8$   
 $6 \times 4 = 24$   
 $24 \times 5 = 120$   
 $120 \times 6 = 720$

33. (2) The given number series is based on the following pattern :

$$1548 \ 3 = 516$$

$$516 \ 4 = 129$$

$$129 \ 3 = 43$$

$$43 \ 4 = \mathbf{10.75}$$

Hence, 10.75 will replace the question mark.

34. (4) The given number series is ' based on the following pattern :

$$949 \times 0.2 = 189.8$$

$$189.8 \times 0.3 = \mathbf{56.94}$$

$$56.94 \times 0.4 = 22.776$$

$$22.776 \times 0.5 = 11.388$$

$$11.388 \times 0.6 = 6.8328$$

Hence, 56.94 will replace the question mark.

35. (1) The given number series is based on the following pattern :

$$121 + 23 \times 1 = 144$$

$$144 + 23 \times 2 = 190$$

$$190 + 23 \times 3 = 259$$

$$? = 259 + 23 \times 4 = 259 + 92 = \mathbf{351}$$

Hence, 351 will replace the question mark.

36. (5) The given number series is based on the following pattern :

$$14 \times 3 + 1.5 = 43.5$$

$$43.5 \times 6 + 1.5 \times 2 = 264$$

$$264 \times 12 + 1.5 \times 4 = \mathbf{3174}$$

$$3174 \times 24 + 1.5 \times 8 = 76188$$

Hence, 3174 will replace the question mark.

37. (3) The given number series is based on the following pattern :

$$41 \times 2^2 = 164$$

$$164 \times 4^2 = 2624$$

$$2624 \times 6^2 = \mathbf{94464}$$

$$94464 \times 8^2 = 6045696$$

Hence 94464 will replace the question mark.

38. (1) The pattern is :

$$2 + 3 = 5$$

$$5 + 4 = 9$$

$$6 + 5 = \mathbf{14}$$

$$14 + 6 = 20$$

$$20 + 7 = 27$$

## MODEL EXERCISES

1. The interior angles of a polygon are in AP, the smallest angle is  $120^\circ$  and the common difference is 5. Then, the number of sides of the polygon are —  
 (1) 16 (2) 9  
 (3) 8 (4) 12  
 (5) None of these
2. A man arranges to pay off a debt of Rs 3600 in 40 annual instalments which form an AP. When 30 of the instalments are paid, he dies leaving one-third of the debt unpaid. Find the value of the first instalment.  
 (1) 55 (2) 53  
 (3) 51 (4) 49  
 (5) None of these
3. Find  $1^3 + 2^3 + 3^3 + \dots + 15^3$   
 (1) 11025 (2) 13400  
 (3) 900 (4) 14400  
 (5) None of these
4. The value of  $(1^3 + 2^3 + 3^3 + \dots + 15^3) - (1 + 2 + 3 + \dots + 15)$  is —  
 (1) 14280 (2) 14400  
 (3) 12280 (4) 13280  
 (5) None of these
5. What is the next number in the series given below?  
 53, 48, 50, 50, 47  
 (1) 51 (2) 46  
 (3) 53 (4) 52  
 (5) None of these
6. In a GP, the first term is 5 and the common ratio is 2. The eighth term is —  
 (1) 640 (2) 1280  
 (3) 256 (4) 160  
 (5) None of these
7. If the arithmetic mean of two numbers is 5 and geometric mean is 4, then the numbers are —  
 (1) 4, 6 (2) 4, 7  
 (3) 3, 8 (4) 2, 8  
 (5) None of these
8. What is the next number in the series given below?  
 2, 5, 9, 14, 20  
 (1) 25 (2) 26  
 (3) 27 (4) 28  
 (5) None of these
9. The sum of 40 terms of an AP whose first term is 4 and common difference is 4, will be —  
 (1) 3200 (2) 1600  
 (3) 200 (4) 2800  
 (5) None of these
10. Let  $S_n$  denote the sum of the first 'n' terms of an AP  
 $S_{2n} = 3S_n$ . Then, the ratio  $\frac{S_{3n}}{S_n}$  is equal to  
 (1) 4 (2) 6  
 (3) 8 (4) 10  
 (5) None of these
11. The missing number in the series 8, 24, 12, 36, 18, 54 is —  
 (1) 27 (2) 108  
 (3) 68 (4) 72  
 (5) None of these
12. The sum of the 6th and 15th elements of an arithmetic progression is equal to the sum of 7th, 10th and 12th elements of the same progression. Which element of the series should necessarily be equal to zero?  
 (1) 10th (2) 8th  
 (3) 1st (4) 9th  
 (5) None of these
13. If p, q, r, s are in harmonic progression and  $p > s$ , then —  
 $\frac{1}{ps} < \frac{1}{qr}$  (1)  $ps < qr$  (2)  $q + r = p + s$   
 $\frac{1}{q+p} = \frac{1}{r+s}$  (3)  $\frac{1}{q+p} = \frac{1}{r+s}$  (4) None of these  
**(MAT Exam. Sept. 2003)**
14. What is the eighth term of the sequence 1, 4, 9, 16, 25 .....?  
 (1) 8 (2) 64  
 (3) 128 (4) 200  
 (5) None of these
15. In a geometric progression, the sum of the first and the last term is 66 and the product of the second and the last but one term is 128. Determine the first term of the series.  
 (1) 64 (2) 64 or 2  
 (3) 2 or 32 (4) 32  
 (5) None of these
16. A sequence is generated by the rule that the xth term is  $x^2 + 1$  for each positive integer x. In this sequence, for any value  $x > 1$ , the value of (x + 1)th term less the value of xth term is —  
 (1)  $2x^2 + 1$  (2)  $x^2 + 1$   
 (3)  $2x + 1$  (4)  $x + 2$   
 (5) None of these
17. Four different integers form an increasing AP. If one of these numbers is equal to the sum of the squares of the other three numbers, then the numbers are —

- (1) -2, -1, 0, 1                      (2) 0, 1, 2, 3  
(3) -1, 0, 1, 2                      (4) 1, 2, 3, 4  
(5) None of these
- 18.** How many terms are there in an AP whose first and fifth terms are -14 and 2 respectively and the sum of terms is 40 ?  
(1) 15                                      (2) 10  
(3) 5                                        (4) 20
- (5) None of these
- 19.** The first three numbers in a series are -3, 0, 3, the 10th number in the series will be —  
(1) 18                                      (2) 21  
(3) 24                                      (4) 27  
(5) None of these

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### SHORT ANSWERS

- |         |         |
|---------|---------|
| 1. (2)  | 2. (3)  |
| 3. (4)  | 4. (1)  |
| 5. (4)  | 6. (1)  |
| 7. (4)  | 8. (3)  |
| 9. (1)  | 10. (2) |
| 11. (1) | 12. (2) |
| 13. (4) | 14. (1) |
| 15. (4) | 16. (2) |
| 17. (2) | 18. (3) |
| 19. (3) |         |
| 1. (4)  | 2. (1)  |
| 3. (4)  | 4. (3)  |
| 5. (2)  | 6. (3)  |
| 7. (5)  | 8. (2)  |
| 9. (1)  | 10. (4) |
| 11. (3) | 12. (5) |
| 13. (2) | 14. (1) |
| 15. (4) | 16. (1) |
| 17. (5) | 18. (1) |
| 19. (1) |         |

### EXPLANATIONS

1. (2) Let the polygon has  $n$  sides.  
Given, the smallest interior angle is  $120^\circ$ ,  
hence the greatest exterior angle will be  
 $(180^\circ - 120^\circ) = 60^\circ$   
We know sum of exterior angles of a  
polygon =  $360^\circ$   
 $60 + 55 + 50 + \dots = 360$   
{Common difference =  $-5$ }
- $$\frac{n}{2} [2a + (n - 1) d] = 360$$
- $$\frac{n}{2} [120 + (n - 1) \times -5] = 360$$
- $$n^2 - 25n + 144 = 0$$
- $$n = 9, 16$$
- Number of sides cannot be 16.  
Hence,  $n = 9$
2. (3) According to question,  
Sum of 40 instalments  $S_{40}$   
 $= 3600 = 20 (2a + 39d)$   
 $2a + 39d = 180 \dots (i)$   
Sum of 30 instalments  $S_{30}$   
 $= 2400 = 15 (2a + 29d)$   
 $2a + 29d = 160 \dots (ii)$   
Solving Eqs. (i) and (ii), we get  
 $a = 51$  and  $d = 2$   
The value of first instalment  
 $= \text{Rs } 51$
3. (4) According to question, we have,

$$1^3 + 2^3 + 3^3 + \dots + n^3 = \frac{n(n+1)^2}{2}$$

Here,  $n =$  number of terms = 15

$$\frac{n(n+1)^2}{2} = \frac{15(16)^2}{2}$$

$$= (120)^2 = 14400$$

4. (1) According to question,  
 $(1^3 + 2^3 + 3^3 + \dots + 15^3)$   
 $- (1 + 2 + 3 + \dots + 15)$

$$= \frac{n(n+1)^2}{2} - \frac{n(n+1)}{2}$$

$$= \frac{15(16)^2}{2} - \frac{15(16)}{2}$$

$$= (120)^2 - (120)$$

$$= 120 \times 119 = 14280$$

5. (4) According to question,  
53, 48, 50, 50, 47...

The above series can be splitted into two  
series one in ascending order and other in  
descending order 53, 50, 47 and other is  
48, 50, 52.

Hence, 52 will be the next number.

6. (1) According to question,

$n$ th term of a GP =  $a^{n-1}$

$$8\text{th term} = 5 \times (2)^{8-1} = 5 \times$$

$$(2)^7 = 5 \times 128 = 640$$

7. (4) Let the two numbers be  $x$  and  $y$ .

Then, AM,

$$\frac{x+y}{2} = 5$$

$$x+y = 10$$

and GM,  $\sqrt{xy} = 4 \dots (i)$

$$xy = 16$$

$$(x-y)^2 = (x+y)^2 -$$

$$4xy \quad 100 - 64 = 36$$

$$x-y = 6 \dots (ii)$$

Or

Solving Eqs. (i) and (ii),

$$x = 8 \text{ and } y = 2$$

8. (3) According to question,

$$2 + 3 = 5; \quad 5 + 4 = 9;$$

$$9 + 5 = 14; \quad 14 + 6 = 20;$$

$$20 + 7 = 27$$

Hence, the next number of the series will  
be 27.

9. (1) According to question,

$$S_{40} = \frac{n}{2} [2a + (n-1)d]$$

$$= 20 [4 + 39 \times 4]$$

$$= 20 \times 160 = 3200$$

10. (2) Let  $a$  be the first term and  $d$  be the common difference.

$$\text{Then, } S_n = \frac{n}{2} [2a + (n-1)d]$$

$$S_{2n} = \frac{2n}{2} [2a + (2n-1)d]$$

$$\text{and } S_{3n} = \frac{3n}{2} [2a + (3n-1)d]$$

$$\text{Given, } S_{2n} = 3S_n$$

$$\frac{2n}{2} [2a + (2n-1)d] =$$

$$\frac{n}{2} [2a + (n-1)d]$$

$$4a + (4n-2)d = 6a + (3n-3)d$$

$$d(4n-2-3n+3) = 2a$$

$$d = n \frac{2a}{1}$$

$$S_n = \frac{2an^2}{n \cdot 1}$$

$$\text{and } S_{3n} = \frac{12an^2}{3 \cdot n \cdot 1}$$

$$\frac{S_n}{S_{3n}} = \frac{2an^2}{n \cdot 1} \times \frac{n \cdot 1}{12an^2} = \frac{1}{6} = \frac{S_n}{S_{3n}} = 6$$

11. (1) According to question, 8, 24, 12, 36, 18, 54

$$\begin{array}{cccccc} \boxed{8} & \boxed{24} & \boxed{12} & \boxed{36} & \boxed{18} & \boxed{54} & \boxed{27} \\ \times 3 & \div 2 & \times 3 & \div 2 & \times 3 & \div 2 & \end{array}$$

Hence, 27 will come in the blank space.

12. (2) Let the first term and common term of the AP be  $a$  and  $d$  respectively.

$$\text{Then, } (a + 5d) + (a + 14d) =$$

$$(a + 6d) + (a + 9d) + (a + 11d)$$

$$2a + 19d = 3a + 26d \quad a + 7d = 0$$

8th term is 0.

13. (4) According to question, If  $p, q, r, s$  are in HP.

$$\frac{1}{p}, \frac{1}{q}, \frac{1}{r}, \frac{1}{s}$$

$p, q, r, s$  are in AP

$$\frac{1}{q} - \frac{1}{p} = \frac{1}{r} - \frac{1}{s}$$

$$\frac{1}{q} + \frac{1}{r} = \frac{1}{s} + \frac{1}{p}$$

Hence the none of these be answer

14. (2) According to question, 1, 4, 9, 16, 25

$$(1)^2 (2)^2 (3)^2 (4)^2 (5)^2$$

Each term of the progression is the square of a natural number.

Hence, the eighth term of the sequence will be  $(8)^2 = 64$

15. (2) Let the last term be  $n$ , then  $a + ar^{n-1} = 66$

$$\text{and } ar \cdot ar^{n-2} = 128$$

$$a^2 r^{n-1} = 128$$

From Eqs. (i) and (ii),

$$a(66 - a) = 128$$

$$a^2 - 66a + 128 = 0$$

$$a = 64, 2$$

16. (3) According to question,

$(x+1)^{\text{th}}$  term -  $x^{\text{th}}$  term

$$= (x+1)^2 + 1 - (x^2 + 1)$$

$$= x^2 + 2x + 1 + 1 - x^2 - 1$$

$$= 2x + 1$$

17. (3) By hit and trial or common sense, we have,

$$2 = (-1)^2 + (0)^2 + (1)^2$$

Hence the numbers are -1, 0, 1, 2

18. (2) According to question,

$$T_5 = a + (n-1)d$$

$$2 = -14 + 4d$$

$$\frac{16}{4}$$

$$d = \frac{16}{4} = 4$$

$$S_n = 2 \left[ \frac{n}{2} [2a + (n-1)d] \right]$$

$$40 = 2 [-28 + (n-1) \times 4]$$

$$80 = -28n + 4n^2 - 4n$$

$$4n^2 - 32n - 80 = 0 \quad n^2 - 8n - 20 = 0$$

$$8n - 20 = 0$$

$$(n-10)(n+2) = 0$$

$$n = 10 \quad (n-2)$$

19. (3) According to question,

$$a = -3, \quad d = 3$$

$$T_{10} = a + (10-1)d$$

$$T_{10} = -3 + 9 \times 3 = 24$$