

SERIES

INTRODUCTION

Questions on series are relatively easy as these are based on certain pattern (increasing or decreasing) & require only elementary calculations.

If you apply a structured approach (discussed below), you may take roughly $\frac{1}{2}$ minute/question. But if you approach these questions without a step by step process, series questions may confuse you.

Structured step by step approach

It is a 3- step process.

1. Identify patterns \rightarrow increasing/ decreasing/mixed trends.
2. Pattern, will provide you a hint/clue about possible operations i.e. (+ - \times \div) to get answer
3. Finally, do certain calculations to get the answer.

How to identify patterns in as series?

Observe different series given below and try to identify patterns see on (right side of page)

SERIES	PATTERNS
19 30 44 67 117 ?	slow increasing
6 42 215 864 ?	fast increasing
4096 2048 512 64 4 ?	fast decreasing
15 18 16 19 17 ?	mixed i/d

Observations from above table

1. Numbers in series 2 increases much faster than numbers in series 1. Why it is so? Guess? Any hint?
2. Last Series shows a mixed pattern both increasing as well as decreasing!

From above discussion we can roughly classify questions on series

	Patterns	Types
SERIES	Increasing	Slow Increasing
		Fast Increasing
	Decreasing	Slow Decreasing
		Fast Decreasing
Mixed		

Now we will discuss each pattern in detail with examples

Series in increasing order	Primarily, why numbers in a series show increasing order? 1. If you add something to successive numbers of a series. in this case you get slow increase 2. If you multiply something to successive numbers of a series. in this case you may get a fast increase. Or there could be both multiplication as well as addition	Slow increase - Solved example $19 \quad 30 \quad 44 \quad 67 \quad 117 \quad ?$ $\begin{array}{cccccc} & +11 & +14 & +23 & +50 & \\ \hline & +3 & +9 & +27 & & \end{array}$
series in decreasing order	Primarily, why numbers in a series show decreasing order? 1. If you subtract something to successive numbers of a series. in this case you get	Fast increase - Solved example $6 \quad 42 \quad 215 \quad 864 \quad ?$ $\begin{array}{cccc} \textcircled{\times 6} + 6 & \textcircled{\times 5} + 5 & \textcircled{\times 4} + 4 & \textcircled{?} \end{array}$
		Fast decrease- Solved example



	<p>slow increase</p> <p>2. Or if you divide successive numbers of a series by something.</p> <p>3. Or both subtraction & division</p>	$\begin{array}{cccccc} 980 & 484 & 236 & 112 & 50 & (?) \\ \hline \div 2 & -6 & \div 2 & -6 & \div 2 & -6 \end{array}$
Mixed kind of series.	<p>Mixed series means a series showing both increasing & decreasing trend at the same time. Mixed series can be in two ways</p> <p>1st MIX_{start} → Mixed character at the start of series and after that showing a increasing or decreasing trend. Why it is so? It happens generally if we start multiplying numbers in a series with a multiplying factor less than 1 (<1). see the example – as multiplying factor becomes more than 1 series starts showing increasing trend.</p> <p>2nd MIX_{continuous} - Mixed character continuously in the whole series. It is simply a case of</p>	$\begin{array}{cccccc} 24 & 12 & 12 & 18 & 36 & (?) \\ \hline \times 0.5 & \times 1 & \times 1.5 & \times 2 & & \end{array}$
		$15 \quad 18 \quad 16 \quad 19 \quad 17 \quad ?$

Summary

SERIES	Increasing trend	Slow(+)
		Fast(×)
	Decreasing trend	Slow(-)
		Fast(÷)
	Mixed	Mstart (×<1)
		Mcont.

Previous year questions

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

1. 0 6 24 60 120 210 ?
(a) 343 (b) 280
(c) 335 (d) 295
(e) None of these
2. 1 2 6 21 88 ?
(a) 539 (b) 398
(c) 216 (d) 445
(e) 615
3. 1 6 36 240 1960 ?
(a) 19660 (b) 3680
(c) 36800 (d) 19600
(e) None of these
4. 10 10 16 31 70 ?
(a) 156 (b) 150
(c) 180 (d) 184
(e) 148
5. 10 15 15 12.5 9.375 6.5625 ?
(a) 4.375 (b) 3.2375
(c) 4.6275 (d) 3.575

(e) None of these

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

6. 11 27 48 84 145 ?
(a) 241 (b) 239
(c) 263 (d) 257
(e) 229
7. 12 14 17 13 8 14 21 13 4 ?
(a) 14 (b) 13
(c) 15 (d) 2
(e) None of these
8. 12 14 32 102 416 2090 ?
(a) 15522 (b) 12552
(c) 13525 (d) 17552
(e) None of these
9. 120 15 105 17.5 87.5 ?
(a) 18.5 (b) 19.5
(c) 21.875 (d) 17.5
(e) 901
10. 1200 480 192 76.8 30.72 12.288 ?
(a) 4.9152 (b) 5.8192
(c) 6.7112 (d) 7.6132
(e) 8.5172



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

11. 123 140 106 157 89 ?

- (a) 214 (b) 139
(c) 198 (d) 169
(e) 174

12. 13 6 5 6 10 ?

- (a) 19 (b) 25
(c) 17.5 (d) 28
(e) 22.51

13. 13 14 32 105 436 ?

- (a) 2205 (b) 2105
(c) 2215 (d) 2405
(e) None of these

14. 13 16 21 27 39 52 69

- (a) 21 (b) 39
(c) 27 (d) 52
(e) 16

15. 139 135 128 116 97 ?

- (a) 65 (b) 68
(c) 69 (d) 67
(e) 80

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

16. 147 148 153 167 197 ?

- (a) 242 (b) 262
(c) 282 (d) 252
(e) None of these

17. 155 151 144 132 113 ?

- (a) 89 (b) 71
(c) 85 (d) 92
(e) 60

18. 158 78 38 18 8 ?

- (a) 3 (b) 5
(c) 2 (d) 7
(e) 6

19. 16 15 10 26 1 ?

- (a) 45 (b) 61
(c) 42 (d) 38
(e) 37

20. 16 8 12 30 ?

- (a) 75 (b) 105
(c) 95 (d) 115
(e) None of these

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

21. 17 52 158 477 ? 4310

- (a) 1433 (b) 1432
(c) 1435 (d) 1434
(e) None of these

22. 17 9 ? 16.5 35 90

- (a) 5 (b) 15
(c) 10 (d) 20

(e) None of these

23. 177 170 159 146 ? 110

- (a) 132 (b) 106
(c) 129 (d) 127
(e) None of these

24. 18 19 24 37 66 ?

- (a) 158 (b) 224
(c) 219 (d) 192
(e) 127

25. 18 18 24 48 108 ?

- (a) 254 (b) 228
(c) 212 (d) 176
(e) 194

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

26. 19 19.6 20.8 23.2 28 ?

- (a) 35.7 (b) 37.6
(c) 31.8 (d) 39.8
(e) 38.2

27. 190 94 46 22 ? 4

- (a) 19 (b) 15
(c) 10 (d) 8
(e) 16

28. 2 13 ? 285 871 1767 1803

- (a) 69 (b) 68
(c) 64 (d) 120
(e) 105

29. 2 3 11 38 102 ?

- (a) 402 (b) 182
(c) 227 (d) 168
(e) None of these

30. 20 21 25 34 50 ? 111

- (a) 70 (b) 65
(c) 60 (d) 75
(e) None of these

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

31. 23 42.2 80.6 157.4 311 ?

- (a) 618.2 (b) 623.2
(c) 624.2 (d) 616.6
(e) None of these

32. 24 26 20 32 12 ?

- (a) 42 (b) 54
(c) 56 (d) 46
(e) 64

33. 28 39 63 102 158 (?)

- (a) 232 (b) 242
(c) 233 (d) 244
(e) None of these

34. 286 142 ? 34 16 7

- (a) 66 (b) 72
(c) 64 (d) 74
(e) None of these



35. 3 4 12 ? 196
(a) 45 (b) 40
(c) 41 (d) 49
(e) None of these

Direction: What will come in place of question mark (?) in the following number series?

36. 300 298 307 279 344 ?
(a) 265 (b) 218
(c) 253 (d) 289
(e) 298

37. 32 49 83 151 287 559 ?
(a) 1118 (b) 979
(c) 1103 (d) 1120
(e) None of these

38. 320 308 284 236 140 ?
(a) 114 (b) 110
(c) 50 (d) 98
(e) 52

39. 36 154 232 278 300 ?
(a) 304 (b) 313
(c) 308 (d) 307
(e) None of these

40. 4 200 369 513 634 (?)
(a) 788 (b) 715
(c) 734 (d) 755
(e) None of these

Direction: What will come in place of question mark (?) in the following number series?

41. 4000 2008 1012 ? 265 140.5 78.25
(a) 506 (b) 514
(c) 520 (d) 512
(e) None of these

42. 47 23 11 5 2 ?
(a) 0.2 (b) 1
(c) 0.4 (d) 2
(e) 0.5

43. 499 622 868 1237 1729 2344 ?
(a) 3205 (b) 3082
(c) 2959 (d) 3462
(e) 2876

44. 5 ? 38 105 299 872 2580
(a) 12 (b) 14
(c) 16 (d) 18
(e) 20

45. 5 12 26 ? 110 222 446
(a) 50 (b) 52
(c) 54 (d) 56
(e) 60

Direction: What will come in place of question mark (?) in the following number series?

46. 5 3 6 ? 64.75
(a) 15 (b) 15.5
(c) 17.5 (d) 17.25

- (e) None of these

47. 5 46 117 250 509 ? 2045
(a) 829 (b) 1000
(c) 1022 (d) 922
(e) None of these

48. 5 7 16 57 244 1245 7506
(a) 7 (b) 16
(c) 57 (d) 244
(e) 1245

49. 500 484 451 384 266 ?
(a) 36 (b) 80
(c) 56 (d) 64
(e) 42

50. 529 841 961 1369 1681 1849 ?
(a) 2809 (b) 2601
(c) 3249 (d) 3481
(e) 2209

Direction: What will come in place of question mark (?) in the following number series?

51. 56 14 45 ?
(a) 138 (b) 154
(c) 118 (d) 184
(e) None of these

52. 59 66 80 108 ? 276
(a) 150 (b) 125
(c) 164 (d) 132
(e) 178

53. 6 4 5 11 ?
(a) 44 (b) 39
(c) 65 (d) 96
(e) 62

54. 6 5 8 21 80 ?
(a) 268 (b) 192
(c) 255 (d) 364
(e) 395

55. 6 13 38 ? 532 2675
(a) 129 (b) 123
(c) 172 (d) 164
(e) None of these

Direction: What will come in place of question mark (?) in the following number series?

56. 600 125 30 ? 7.2 6.44 6.288
(a) 6 (b) 10
(c) 15 (d) 12
(e) None of these

57. 606 201 66 21 6 ?
(a) 0.5 (b) 2
(c) 5 (d) 1
(e) 3

58. 7 13 ? 49 97
(a) 27 (b) 25
(c) 23 (d) 29
(e) None of these



59. 8 4 6 15 ? 236.25

- (a) 64.5 (b) 84
(c) 52.5 (d) 36
(e) 46

60. 9 10.8 14.4 21.6 ? 64.8

- (a) 36 (b) 44
(c) 34 (d) 41.8
(e) 37.6

Direction: What will come in place of question mark (?) in the following number series?

61. 9 17 ? 65 129

- (a) 32 (b) 24
(c) 35 (d) 33
(e) None of these

62. 9 4 3 3 4 ?

- (a) 9.5 (b) 8.5
(c) 4.5 (d) 6.5
(e) 7.5

63. 9 5 6 10.5 23 ?

- (a) 85 (b) 60
(c) 78 (d) 49
(e) 97

64. 0 5 18 43 84 145 ?

- (a) 220 (b) 240
(c) 260 (d) 280
(e) None of these

65. 1 ? 27 64 125

- (a) 8 (b) 4
(c) 6 (d) 9
(e) None of these

Direction: What will come in place of question mark (?) in the following number series?

66. 1 3 24 360 8640 302400 ?

- (a) 14525100 (b) 154152000
(c) 14515200 (d) 15425100
(e) None of these

67. 10 17 48 165 688 3475 ?

- (a) 27584 (b) 25670
(c) 21369 (d) 20892
(e) None of these

68. 10 14 25 55 140 (?)

- (a) 386 (b) 398
(c) 388 (d) 396
(e) None of these

69. 11.2 12.9 9.5 14.6 7.8 ?

- (a) 17.9 (b) 16.3
(c) 16.7 (d) 16.2
(e) 16.9

70. 12 ? 168 504 1260 2520

- (a) 96 (b) 59
(c) 61 (d) 48
(e) None of these

Direction: What will come in place of question mark (?) in the following number series?

71. 123 277 459 669 907 ?

- (a) 1179 (b) 1:173
(c) 1167 (d) 1169
(e) None of these

72. 13 25 40 57 79 103 130

- (a) 25 (b) 40
(c) 57 (d) 79
(e) None of these

73. 13 27 55 97 153 ?

- (a) 243 (b) 265
(c) 215223
(e) None of these

74. 14 12 21 59 231 1149 ?

- (a) 6987 (b) 6787
(c) 6887 (d) 6687
(e) 6587

75. 1548 516 129 43 ?

- (a) 11 (b) 10.75
(c) 9.5 (d) 12
(e) None of these

Direction: What will come in place of question mark (?) in the following number series?

76. 16 28 58 114 204.

- (a) 7 (b) 9
(c) 14 (d) 6
(e) 10

77. 17 289 425 493 527 ?

- (a) 534 (b) 542
(c) 544 (d) 594
(e) None of these

78. 1728 2744 4096 5832 8000 10648 ?

- (a) 12167 (b) 13824
(c) 15625 (d) 9261
(e) 17576

79. 19 10 11 18 38 ?

- (a) 97.5 (b) 110
(c) 115 (d) 124.5
(e) 99.5

80. 2 3 7 13 25 47 78

- (a) 11 (b) 13
(c) 15 (d) 18
(e) 20

Direction: What will come in place of question mark (?) in the following number series?

81. 2 9 30 ? 436 2195 13182

- (a) 216 (b) 105
(c) 178 (d) 324
(e) None of these

82. 20 23 30 43 64 ?

- (a) 95 (b) 90
(c) 100 (d) 105



- (e) 96
83. 224 576 752 840 884 ?
(a) 960 (b) 890
(c) 906 (d) 908
(e) None of these

- 84.** 24 536 487 703 678 ?
(a) 768 (b) 748
(c) 764 (d) 742
(e) None of these

- 85.** 25 16 ? 4 1 .
(a) 3 (b) 6
(c) 12 (d) 18
(e) None of these

- 86.** 3 4 9 28 113 ?
(a) 782 (b) 424
(c) 646 (d) 384
(e) 566

Direction: What will come in place of question mark (?) in the following number series?

- 87.** 32 36 52 88 152 ?
(a) 266 (b) 232
(c) 242 (d) 256
(e) None of these

- 88.** 33 16.5 ? 24.75 49.5 123.75
(a) 18.5 (b) 16.5
(c) 8.5 (d) 8.25
(e) None of these

- 89.** 4 5.8 9.4 16.6 ? 59.8
(a) 31 (b) 32
(c) 29 (d) 33
(e) 34

- 90.** 4 9 29 ? 599 3599
(a) 117 (b) 347
(c) 258 (d) 174
(e) None of these

Direction: What will come in place of question mark (?) in the following number series?

- 91.** 4 10 40 190 940 ? 23440
(a) 4690 (b) 2930
(c) 5140 (d) 3680
(e) None of these

- 92.** 40280625 732375 16275 465 18.6 1.24 ?
(a) 0.248 (b) 0.336
(c) 0.424 (d) 0.512
(e) 0.639

- 93.** 41 164 2624 ? 6045696
(a) 104244 (b) 94644
(c) 94464 (d) 102444
(e) None of these

- 94.** 44 ? 99 148.5 2 22.75 334.125
(a) 44 (b) 55
(c) 66 (d) 33
(e) 35

- 95.** 456.5 407 368.5 341 324.5 ?
(a) 321 (b) 319
(c) 317 (d) 323
(e) None of these

Direction: What will come in place of question mark (?) in the following number series?

- 96.** 586 587 586 581 570 ? 522
(a) 545 (b) 543
(c) 551 (d) 557
(e) None of these

- 97.** 6 42 ? 1260 5040 15120 30240
(a) 546 (b) 424
(c) 252 (d) 328
(e) None of these

- 98.** 656 432 320 264 236 (?)
(a) 222 (b) 229
(c) 232 (d) 223
(e) None of these

- 99.** 7 4 5 9 ? 52.5 160.5
(a) 32 (b) 16
(c) 14 (d) 20
(e) None of these

- 100.** 7 12 32 105 ?
(a) 428 (b) 214
(c) 218 (d) 416
(e) None of these

Direction: What will come in place of question mark (?) in the following number series?

- 101.** 7 8 24 105 361 (?)
(a) 986 (b) 617
(c) 486 (d) 1657
(e) None of these

- 102.** 841 961 1089 1225 1369 1521 ?
(a) 1581 (b) 1681
(c) 1781 (d) 1881
(e) 1981

- 103.** 9 17 33 65 ?
(a) 113 (b) 131
(c) 129 (d) 118
(e) None of these

- 104.** 910 39 220 ? 14382
(a) 1589 (b) 1598
(c) 1958 (d) 1985
(e) 1835

- 105.** 949 189.8 ? 22.776 11.388 6.8328
(a) 48.24 (b) 53.86
(c) 74.26 (d) 56.94
(e) None of these

Direction: What will come in place of question mark (?) in the following number series?

- 106.** 963 927 855 747 603 423 ?
(a) 209 (b) 208
(c) 207 (d) 206



- (e) 205
107. 1 2 6 21 88 445 ?
(a) 2230 (b) 2676
(c) 2580 (d) 2670
(e) None of these

- 108.** 121 144 190 259 ? 466
(a) 351 (b) 349
(c) 374 (d) 328
(e) None of these

- 109.** 13 16 22 33 51 (?)
(a) 89 (b) 78
(c) 102 (d) 69
(e) None of these

- 110.** 16 22 33 49 70 ?
(a) 95 (b) 96
(c) 85 (d) 91
(e) None of these

Direction: What will come in place of question mark (?) in the following number series?

- 111.** 27 38 71126 203 (?)
(a) 212 (b) 202
(c) 301 (d) 312
(e) None of these

- 112.** 435 354 282 219 165 (?)
(a) 103 (b) 112
(c) 120 (d) 130
(e) None of these

- 113.** 495 485 465 425 345 ?
(a) 195 (b) 165
(c) 185 (d) 175
(e) None of these

- 114.** 5 54 90 115 131 140 ?
(a) 149 (b) 146
(c) 142 (d) 152
(e) None of these

- 115.** 50 60 75 97.5 ? 184.275 267.19875
(a) 120.50 (b) 130.50
(c) 131.625 (d) 124.25
(e) None of these

Direction: What will come in place of question mark (?) in the following number series?

- 116.** 62 87 187 412 812 (?)
(a) 1012 (b) 1437
(c) 1337 (d) 1457
(e) None of these

- 117.** 9 15 27 51 99 ?
(a) 165 (b) 195
(c) 180 (d) 190
(e) None of these

- 118.** 104 109 99 114 94 ?
(a) 69 (b) 124
(c) 120 (d) 78
(e) None of these

- 119.** 12 15 36 ? 480 2415 14508
(a) 115 (b) 109
(c) 117 (d) 121
(e) None of these

- 120.** 14 43.5 264 ? 76188
(a) 3168 (b) 3176,
(c) 1587 (d) 1590
(e) None of these

Direction: What will come in place of question mark (?) in the following number series?

- 121.** 18 27 49 84 132 (?)
(a) 190 (b) 183
(c) 180 (d) 193
(e) None of these

- 122.** 21 10.5 ? 15.75 31.5 78.75
(a) 10.5 (b) 11.5
(c) 12.5 (d) 10.25
(e) None of these

- 123.** 121 238 472 ? 1876 3748
(a) 1008 (b) 948
(c) 944 (d) 940V
(e) 1005

- 124.** .12 12 18 45 180 1170 ?
(a) 12285 (b) 10530
(c) 11700 (d) 12870
(e) 7605

- 125.** 1 2 12 63 316 ?
(a) 1705 (b) 1066
(c) 1585 (d) 1224
(e) 584

Direction: What will come in place of question mark (?) in the following number series?

- 126.** 1 16 81 256 625 1296 ?
(a) 4096 (b) 2401
(c) 1764 (d) 3136
(e) 6561

- 127.** 1 7 49 343 (?)
(a) 16807 (b) 1227
(c) 2058 (d) 2401
(e) None of these

- 128.** 1.21 1.44 1.69 1.96 2.25 2.56 ?
(a) 3.61 (b) 2.85
(c) 3.24 (d) 2.94
(e) Other than those given as options

- 129.** 1.7 3.2 2.7 4.2 3.7 ? 4.76.2
(a) 6.2 (b) 5.5
(c) 5.2 (d) 4
(e) None of these

- 130.** 10 15 24 35 54 75 100
(a) 35 (b) 75
(c) 24 (d) 15
(e) 54



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

- 131.** 100 52 28 16 10 ?
(a) 7 (b) 3
(c) 6 (d) 4
(e) 5

- 132.** 1050 420 168 67.2 26.88 10.752 ?
(a) 4.3008 (b) 6.5038
(c) 4.4015 (d) 5.6002
(e) None of these

- 133.** 11 12 28 93 388 ?
(a) 1965 (b) 865
(c) 1956 (d) 2065
(e) None of these

- 134.** 11 15 31 67 131 (?)
(a) 233 (b) 221-
(c) 243 (d) 231
(e) None of these

- 135.** 11 23 47 95 ?
(a) 189 (b) 193
(c) 181 (d) 195
(e) None of these

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

- 136.** 11 25 53 ? 221 445 893
(a) 110 (b) 108
(c) 105 (d) 109
(e) None of these

- 137.** 11 57 149 333 701 (?)
(a) 1447 (b) 1347
(c) 1368 (d) 1437
(e) None of these

- 138.** 11 10 18 51 200 (?)
(a) 885 (b) 1025
(c) 865 (d) 995
(e) None of these

- 139.** 112 119 140 175 224 (?)
(a) 277 (b) 276
(c) 287 (d) 266
(e) None of these

- 140.** 117 389 525 593 627 (?)
(a) 654 (b) 640
(c) 634 (d) 630
(e) None of these

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

- 141.** 119 131 155 191 239 (?)
(a) 289 (b) 290
(c) 279 (d) 280
(e) None of these

- 142.** 12 18 36 102 360 (?)
(a) 1364 (b) 1386
(c) 1384 (d) 1376

(e) None of these

- 143.** 12 17 32 57 92 (?)
(a) 198 (b) 195
(c) 137 (d) 205
(e) None of these

- 144.** 12 22 42 82 162 ?
(a) 332 (b) 304
(c) 302 (d) 322
(e) None of these

- 145.** 12 22 42 62 162 ?
(a) 332 (b) 304
(c) 302 (d) 322
(e) None of these

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

- 146.** 12 35 81 173 357 (?)
(a) 725 (b) 715
(c) 726 (d) 736
(e) None of these

- 147.** 120 137 178 222 290 375 477
(a) 120 (b) 222
(c) 375 (d) 477
(e) 178

- 148.** 120 320 ? 2070 5195 13007.5
(a) 800 (b) 920
(c) 850 (d) 900
(e) None of these

- 149.** 121 144 190 259 ? 466
(a) 351 (b) 349
(c) 374 (d) 328
(e) None of these

- 150.** 125 128 119 146 65?
(a) 308 (b) 316
(c) 298 (d) 294
(e) 264

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

- 151.** 13 13 65 585 7605 129285 ?
(a) 2456415 (b) 2235675
(c) 2980565 (d) 2714985
(e) 2197845

- 152.** 13 14 30 93 376 1885 ?
(a) 10818 (b) 10316
(c) 11316 (d) 11318
(e) None of these

- 153.** 13 19 30 48 75 ?
(a) 107 (b) 108
(c) 116 (d) 112
(e) 113

- 154.** 13 20 39 78 145 (?)
(a) 234 (b) 244
(c) 236 (d) 248
(e) None of these



- 155.** 13 -21 34 -55 89 -144 ?
(a) 233 (b) 255
(c) 244 (d) 266
(e) 222

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

- 156.** 13 21 36 58 87 ?
(a) 122 (b) 128
(c) 133 (d) 123
(e) None of these
- 157.** 13 25 61 121 205 (?)
(a) 323 (b) 326
(c) 324 (d) 313
(e) None of these
- 158.** 13.76 14.91 17.21 20.66 ? 31.01
(a) 25.66 (b) 24.36
(c) 24.26 (d) 25.26
(e) 25.36

- 159.** 130 139 155 180 216 ?
(a) 245 (b) 255
(c) 265 (d) 275
(e) None of these

- 160.** 130 139 155 180 216 (?)
(a) 260 (b) 290
(c) 265 (d) 996
(e) None of these

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

- 161.** 133 183 241 307 381 463 ?
(a) 557 (b) 521
(c) 553 (d) 541
(e) Other than those given as options

- 162.** 1331 2197 4913 6859 ? 24389
(a) 12167 (b) 13824
(c) 9261 (d) 15625
(e) None of these

- 163.** 14 16 35 109 441 ?
(a) 2651 (b) 2205
(c) 2315 (d) 2211
(e) None of these

- 164.** 14 1004 1202 1251.5 1268(?)
(a) 1267.5 (b) 1276.25
(c) 1324.5 (d) 1367.25
(e) None of these

- 165.** 14 15 23 32 96 ?
(a) 121 (b) 124
(c) 152 (d) 111
(e) None of these

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

- 166.** 14 24 43 71 108 (?)
(a) 194 (b) 154
(c) 145 (d) 155

(e) None of these

- 167.** 14 43.5 264 ? 76188
(a) 3168 (b) 3176
(c) 1587 (d) 1590

(e) None of these

- 168.** 14 6 5 6.5 12 ?
(a) 29 (b) 27
(c) 23 (d) 33
(e) 35

- 169.** 144 173 140 169 136 (?)
(a) 157 (b) 148
(c) 164 (d) 132
(e) None of these

- 170.** 15 21 39 77 143 (?)
(a) 243 (b) 240
(c) 253 (d) 245
(e) None of these

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

- 171.** 15 ? 24 33 97 122
(a) 20 (b) 19
(c) 17 (d) 18
(e) 16

- 172.** 15 12 1710 ? 8 21 6
(a) 3 (b) 7
(c) 21 (d) 19
(e) None of these

- 173.** 15 18 16 19 17 20 ?
(a) 23 (b) 22
(c) 16 (d) 18
(e) None of these

- 174.** 15 19 83 119 631 (?)
(a) 731 (b) 693
(c) 712 (d) 683
(e) None of these

- 175.** 15 21 33 51 75 (?)
(a) 113 (b) 103
(c) 105 (d) 115
(e) None of these

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

- 176.** 15 22 57 183 ? 748 3755 22542
(a) 709 (b) 698
(c) 748 (d) 800
(e) None of these

- 177.** 15 22 57 183 ? 748 3755 22542
(a) 709 (b) 698
(c) 748 (d) 800
(e) None of these

- 178.** 15 25 40 65 ? 195
(a) 115 (b) 90
(c) 105 (d) 120
(e) None of these



179. 15 28 43 60 79 101 123
(a) 28 (b) 43
(c) 60 (d) 101
(e) 123

180. 15 29 56 108 208 400 ?
(a) 758 (b) 770
(c) 784 (d) 768
(e) 778

181. 16 19 24 33 50 ?
(a) 83 (b) 66
(c) 99 (d) 74
(e) 102

182. 16 24 ? 210 945 5197.5 33783.75
(a) 40 (b) 36
(c) 58 (d) 60
(e) None of these

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

183. 16 24 48 120 360 1260 ?
(a) 3780 (b) 4725
(c) 5355 (d) 5040
(e) 4410

184. 161 163 169 181 ?
(a) 218 (b) 195
(c) 129
(d) 207 (e) 201

185. 17 19 25 37 ? 87
(a) 63 (b) 52
(c) 55 (d) 67
(e) 57

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

186. 179 180 172 199 135 ?
(a) 236 (b) 272
(c) 240 (d) 256
(e) 260

187. 18 20 44 138 560 2810 ?16818
(b) 16836
(c) 16854 (d) 16872
(e) 16890

188. 19 26 40 68 124 (?)
(a) 246 (b) 238
(c) 236 (d) 256
(e) None of these

189. 19 30 44 67 117 ?
(a) 236 (b) 272
(c) 264 (d) 248
(e) 254

190. 19 34 64 124 244 ?
(a) 396 (b) 358
(c) 484 (d) 328
(e) 332

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

191. 19 20 16 25 9 ?
(a) 32 (b) 38
(c) 34 (d) 42
(e) 48

192. 19 25 45 87 159 (?)
(a) 254 (b) 279
(c) 284 (d) 269
(e) None of these

193. 2 3 18 115 854 ?
(a) 7776 (b) 7767
(c) 6676 (d) 6667
(e) None of these

194. 2 3 18 115 854 ?
(a) 7776 (b) 7767
(c) 6676 (d) 6667
(e) None of these

195. 2 5 7 12 19 31 50 ?
(a) 53 (b) 81
(c) 69 (d) 74
(e) None of these

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

196. 2 7.5 20.5 67 273.5 ?
(a) 1263 (b) 1373
(c) 1273 (d) 1337
(e) None of these

197. 2 7.5 20.5 67 273.5 ?
(a) 1263 (b) 1373
(c) 1273 (d) 1337
(e) None of these

198. 2 8 26 ? 242
(a) 78 (b) 72
(c) 82 (d) 84
(e) None of these

199. 2 8 32 148 765 4626 32431
(a) 765 (b) 148
(c) 8 (d) 32
(e) 4626

200. 20 22 29 46 78 ?
(a) 135 (b) 170
(c) 130 (d) 140
(e) None of these

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

201. 20 22 29 46 78 ?
(a) 135 (b) 170
(c) 130 (d) 140
(e) None of the

202. 20 24 33 49 74 110 ?
(a) 133 (b) .147
(c) 159 (d) 163



- (e) 171
- 203.** 20 24 36 56 84 ?
(a) 116 (b) 124
(c) 120 (d) 128
(e) None of these
- 204.** 200 102 157 400.5 ? 6411.875
(a) 1417.75 (b) 1471.75
(c) 1417.25 (d) 1317.75
(e) None of these
- 205.** 210 209 213186 202 (?)
(a) 138 (b) 77
(c) 177 (d) 327
(e) None of these

Direction: What will come in place of question mark (?) in the following number series?

- 206.** 224 576 752 840 884 ?
(a) 906 (b) 904
(c) 898 (d) 916
(e) None of these
- 207.** 224 576 752 840 884 ?
(a) 960 (b) 890
(c) 906 (d) 908
(e) None of these
- 208.** 23 25 53 163 657 3291 ?
(a) 16461 (b) 13169,
(c) 9877 (d) 23045
(e) 19753 ,
- 209.** 23 30 46 80 141 ?
(a) 244 (b) 212
(c) 226 (d) 220
(e) 238
- 210.** 24 12 12 18 ? 90
(a) 40 (b) 38
(c) 36 (d) 45
(e) None of these

Direction: What will come in place of question mark (?) in the following number series?

- 211.** 24 27 34 47 68 ?
(a) 96 (b) 97
(c) 98 (d) 99
(e) 100
- 212.** 24 27 34 47 68 ?
(a) 96 (b) 97
(c) 98 (d) 99
(e) 100
- 213.** 25 48 94 186 370 (?)
(a) 738 (b) 744
(c) 746 (d) 724
(e) None of these
- 214.** 25 41 89169 281 (?)
(a) 425 (b) 415
(c) 409 (d) 419
(e) None of these

- 215.** 27.35 256451620763(?)
(a) 680 , (b) 893
(c) 633 (d) 880
(e) None of these

Direction: What will come in place of question mark (?) in the following number series?

- 216.** 2890 (?) 1162 874 730 658
(a) 1684 (b) 1738
(c) 1784 (d) 1672
(e) None of these
- 217.** 3 5 16 60 260 ?
(a) 1330 (b) 1303
(c) 1203 (d) 1230
(e) None of these
- 218.** 3 10 32 100 ?
(a) 345 (b) 460
(c) 308 (d) 440
(e) None of these
- 219.** 3 100 297 594 991 (?)
(a) 1489 (b) 1479
(c) 1478 (d) 1498
(e) None of these
- 220.** 3 5 13 43 177 ?
(a) 723 (b) 645
(c) 930 (d) 891
(e) 550

Direction: What will come in place of question mark (?) in the following number series?

- 221.** 3 6 21 28 55 66 ? 120
(a) 103 (b) 104
(c) 106 (d) 106
(e) 105
- 222.** 3 10 ? 172 886 5346 37471 299832
(a) 39 (b) 27
(c) 24 (d) 34
(e) None of these
- 223.** 3 10 21 ? 51
(a) 34 (b) 32
(c) 33 (d) 37
(e) None of these
- 224.** 3 15 ? 421 1681 5041 10081
(a) 85 (b) 80
(c) 84 (d) 95
(e) None of these
- 225.** 3 22 ? 673 2696 8093
(a) 133 (b) 155
(c) 156 (d) 134
(e) None of these
- 3 4.5 18 135 ? 28350
(a) 1400 (b) 1620
(c) 1800 (d) 1820
(e) None of these



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

226. 3 7 1826 ? 53 64 96

- (a) 34 (b) 37
- (c) 32 (d) 38
- (e) None of these

227. 3 732 1244 1587 1803 1928 ?

- (a) 2144 (b) 1992
- (c) 1955 (d) 2053
- (e) None of these

228. 31 15 21 50 ? 767.25

- (a) 160.5 (b) 171.5
- (c) 156.5 (d) 122.5
- (e) 143.5

229. 325 314 292 259 215 ?

- (a) 126 (b) 116
- (c) 130 (d) 160
- (e) None of these

230. 33 39 57 87 129 (?)

- (a) 183 (b) 177
- (c) 189 (d) 199
- (e) None of these

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

231. 33 43 65 99 145 (?)

- (a) 201 (b) 203
- (c) 205 (d) 211
- (e) None of these

232. 331 336 361 486 1111 ?

- (a) 4329 (b) 4136
- (c) 4236 (d) 4326
- (e) None of these

233. 336 224 168 140 126 (?)

- (a) 119 (b) 118
- (c) 116 (d) 121
- (e) None of these

234. 35 256 451 620 763 ?

- (a) 870 (b) 890
- (c) 860 (d) 880
- (e) None of these

235. 35 1660 260 ?

- (a) 1330 (b) 1303
- (c) 1203 (d) 1230
- (e) None of these

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

236. 36 49 75 88 114 ?

- (a) 129 (b) 127
- (c) 137 (d) 128
- (e) None of these

237. 36 52 70 90 112 136 ?

- (a) 150 (b) 152
- (c) 162 (d) 140

(e) Other than those given as options

238. 36 49 75 88 114 (?)

- (a) 130 (b) 140
- (c) 132 (d) 128
- (e) 127

239. 3600 725 150 35 12 ?

- (a) 8 (b) 7.4
- (c) 10.5 (d) 10
- (e) None of these

240. 38.1 3 4 7 11 18 27 47

- (a) 4 (b) 11
- (c) 18 (d) 7
- (e) 27

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

241. 39 52 78 117 169 (?)

- (a) 246 (b) 182
- (c) 234 (d) 256
- (e) None of these

242. 39.3 2 3 6 12 37.5 115.5

- (a) 37.5 (b) 3
- (c) 6 (d) 2
- (e) 12

243. 4 16 36 64 100 ?

- (a) 120 (b) 180
- (c) 136 (d) 144
- (e) None of these

244. 4 11 25 53 109 (?)

- (a) 221 (b) 234
- (c) 212 (d) 222
- (e) None of these

245. 4 4 10 34 94 (?)

- (a) 230 (b) 214
- (c) 220 (d) 209
- (e) None of these

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

246. 4 6 12 30 90 315 ?

- (a) 945 (b) 1102
- (c) 1260 (d) 1417.5
- (e) None of these

247. 4 6 9 13.5 20.25 30.375 ?

- (a) 40.25 (b) 45.5625
- (c) 42,7525 (d) 48.5625
- (e) None of these

248. 4 7 11 18 28 ? 76 123

- (a) 59 (b) 38
- (c) 46 (d) 53
- (e) None of these

249. 400 240 144 86.4 51.84 31.104 ?

- (a) 19.2466 (b) 17.2244
- (c) 16.8824 (d) 18.6625
- (e) None of these



- 250.** 402 400 388 358 302 ?
(a) 212 (b) 236
(c) 190 (d) 182
(e) 210

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

- 251.** 41 164 2624 ? 6045696
(a) 104244 (b) 94644
(c) 94464 (d) 102444
(e) None of these

- 252.** 42. 7413 7422 7440 ? 7503 7548
(a) 7464 (b) 7456
(c) 7466 (d) 7477
(e) None of these

- 253.** 43 69 58 84 73 (?)
(a) 62 (b) 98
(c) 109 (d) 63
(e) None of these

- 254.** 4 16 36 64 100 ?
(a) 120 (b) 180
(c) 136 (d) 144
(e) None of these

- 255.** 438 487 447 476 460 469
(a) 485 (b) 425
(c) 475 (d) 496
(e) None of these

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

- 256.** 44 34 58 164 646 ?
(a) 3820 (b) 2644
(c) 3640
(e) 2856 (d) 3220

- 257.** 44. 12 33 96 ? 852 2553
(a) 285 (b) 288
(c) 250 (d) 384
(e) None of these

- 258.** 444 467 513 582 674 789 ?
(a) 950 (b) 904
(c) 927 (d) 881
(e) 973

- 259.** 45 46 70 141 ? 1061.5
(a) 353 (b) 353.5
(c) 352.5 (d) 352
(e) None of these

- 260.** 45. 70000 14000 2800 ? 112 22.4
(a) 640 (b) 420
(c) 560 (d) 540
(e) None of these

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

- 261.** 45030 9000 1795 355 68 ? 1.32
(a) 11.6 (b) 12.2
(c) 10.4 (d) 9.8

(e) None of these

- 262.** 454 472 445 463 436 (?)
(a) 436 (b) 456
(c) 454 (d) 434

(e) None of these

- 263.** 46. 102 99 104 97 106 ?
(a) 96 (b) 95
(c) 100 (d) 94
(e) None of these

- 264.** 461 474 465 478 469 (?)
(a) 460 (b) 482
(c) 456 (d) 478
(e) None of these

- 265.** 462 552 650 756 870 992 ?
(a) 1040 (b) 1122
(c) 1132 (d) 1050
(e) None of these

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

- 266.** 93 95 99 ? 110 121 134
(a) 104 (b) 96
(c) 82 (d) 103
(e) None of these

- 267.** 8 12 18 26 40.5 60.75 ? 136.6875
(a) 104.125 (b) 121.125
(c) 96.125 (d) 83.125
(e) None of these

- 268.** 483 471 435 375 291 (?)
(a) 183 (b) 184
(c) 185 (d) 186
(e) None of these

- 269.** 49. 4 7 11 18 28 ? 76 123
(a) 59 (b) 38
(c) 46 (d) 53
(e) None of these

- 270.** 5 11 32 108 444 ?
(a) 1780 (b) 2230
(c) 1784 (d) 2225
(e) None of these

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

- 271.** 5 11 ? 55 117
(a) 21 (b) 27
(c) 23 (d) 25
(e) None of these

- 272.** 5 12 36 123 ? 2555 15342
(a) 508 (b) 381
(c) 504 (d) 635
(e) None of these

- 273.** 5 16 49 104 ? 280
(a) 165 (b) 160
(c) 171 (d) 181
(e) 175



274. 5 5 15 75 ? 4725 51975

- (a) 520 (b) 450
- (c) 525 (d) 300
- (e) None of these

275. 5 6 16 57 ? 1245

- (a) 244 (b) 148
- (c) 296 (d) 271
- (e) None of these

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

276. 5 7 13 25 45 (?)

- (a) 67 (b) 75
- (c) 65 (d) 55
- (e) None of these

277. 5 9 18 34 59 95 ?

- (a) 272 (b) 168
- (c) 116 (d) 148
- (e) 144

278. 50. 3 10 ? 172 886 5346 37471
299832

- (a) 39 (b) 27
- (c) 24 (d) 34
- (e) None of these

279. 52 26 26 39 78 ? 585

- (a) 195 (b) 156
- (c) 234 (d) 117
- (e) None of these

280. 55 66.15 88.45 121.9 166.5 ? 212.25
(b) 322.25

- (c) 224.25 (d) 222.25
- (e) None of these

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

281. 6 4 8 23 ? 385.25

- (a) 84.5 (b) 73
- (c) 78.5 (d) 82
- (e) None of these

282. 6 13 ? 118.5 430.75 1748

- (a) 35.5 (b) 36.5
- (c) 43.5 (d) 42.5
- (e) None of these

283. 6 19 58 ? 214 331

- (a) 113 (b) 123
- (c) 133 (d) 143
- (e) None of these

284. 620 632 608 644 596 ?

- (a) 536 (b) 556
- (c) 656 (d) 646
- (e) None of these

285. 64 54 69 49 74 44 ?

- (a) 89 (b) 69
- (c) 59 (d) 99
- (e) None of these

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

286. 655 439 314 250 223 (?)

- (a) 205 (b) 210
- (c) 195 (d) 190
- (e) None of these

287. 656 352 200 124 86 (?)

- (a) 67 (b) 59
- (c) 62 (d) 57
- (e) None of these

288. 697 553 453 389 353 (?)

- (a) 328 (b) 337
- (c) 362 (d) 338
- (e) None of these

289. 7 16 141 190 919 (?)

- (a) 1029 (b) 1019
- (c) 1020 (d) 1030
- (e) None of these

290. 7 24 58 109 ? 262

- (a) 183 (b) 189
- (c) 171 (d) 163
- (e) 177

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

291. 7 11 23 51 103 (?)

- (a) 186 (b) 188
- (c) 185 (d) 187
- (e) None of these

292. 7 20 46 98 202 (?)

- (a) 420 (b) 410
- (c) 310 (d) 320
- (e) None of these

293. 7 6 10 27 104 ?

- (a) 516 (b) 515
- (c) 525 (d) 535
- (e) 540

294. 7 9 19 45 95 ?

- (a) 150 (b) 160
- (c) 145 (d) 177
- (e) None of these

295. 7 9 18 46 111

- (a) 245 (b) 229
- (c) 233 (d) 248
- (e) 237

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

296. 7 9 24 84 ? 1810

- (a) 336 (b) 356
- (c) 348 (d) 340
- (e) 352

297. 7 5 7 13 29 ? 232

- (a) 76 (b) 72
- (c) 78 (d) 84



- (e) None of these
- 298.** 7.4 9.2 11.4 14 17 ?
(a) 19.8 (b) 22.6
(c) 23 (d) 21
(e) 20.4
- 299.** 70000 14000 2800 ? 112 22.4 i
(a) 640 (b) 420
(c) 560 (d) 540
(e) None of these
- 300.** 705 728 774 843 935 1050 ?
(a) 1190 (b) 1180
(c) 1185 (d) 1187
(e) None of these

Direction: What will come in place of question mark (?) in the following number series?

- 301.** 7413 7422 7440 ? 7503 7548
(a) 7464 (b) 7456
(c) 7466 (d) 7477
(e) None of these
- 302.** 8 11 17 ? 65 165.5 498.5
(a) 27.5 (b) 32
(c) 28 (d) 30.5
(e) None of these
- 303.** 8 12 18 26 40.5 60.75 ? 136.6875
(a) 104.125 (b) 121.125
(c) 96.125 (d) 83.125
(e) None of these
- 304.** 8 17 30 47 68 ?
(a) 83 (b) 93
(c) 9895
(e) 96
- 305.** 8 31 122 485 1936 7739 ?
(a) 30950 (b) 46430
(c) 34650 (d) 42850
(e) 38540

Direction: What will come in place of question mark (?) in the following number series?

- 306.** 8 4.5 5.5 9.75 21.5 ?
(a) 56.75 (b) 55.25
(c) 56.25 (d) 54.50
(e) None of these
- 307.** 8 4.5 5.5 9.75 21.5 ?
(a) 56.75 (b) 55.25
(c) 56.25 (d) 54.50
(e) None of these
- 308.** 8 64 216 512 ? 1728
(a) 729 (b) 1331
(c) 684 (d) 1000
(e) None of these
- 309.** 8 10 18 44 124 (?)
(a) 344 (b) 366
(c) 354 (d) 356
(e) None of these

- 310.** 83 124 206 370 698 (?)
(a) 1344 (b) 1324
(c) 1364 (d) 1334
(e) None of these

Direction: What will come in place of question mark (?) in the following number series?

- 311.** 9 4 5 6 14 ?
(a) 48.5 (b) 42
(c) 32.5 (d) 20
(e) 36
- 312.** 9 4.5 4.5 6.75 13.5 33.75 ?
(a) 101.25 (b) 103.75
(c) 99.75 (d) 105.50
(e) None of these
- 313.** 949 189.8 ? 22.776 11.388 6.8328
(a) 48.24 (b) 53.86
(c) 74.26 (d) 56.94
(e) None of these
- 314.** 958 833 733 658 608 (?)
(a) 577 (b) 583
(c) 567 (d) 573
(e) None of these
- 315.** 980 392 156.8 ? 25.088 10.0352
(a) 65.04 (b) 60.28
(c) 62.72 (d) 63.85
(e) None of these

Direction: What will come in place of question mark (?) in the following number series?

- 316.** 980 516 284 168 110 (?)
(a) 73 (b) 71
(c) 83 (d) 91
(e) None of these
- 317.** 93 95 99 ? 110 121 134
(a) 104 (b) 96
(c) 82 (d) 103
(e) None of these
- 318.** 8 5.5 8.5 23 89.5 ?
(a) 455 (b) 420.5
(c) 445 (d) 415.5
(e) 433
- 319.** 61 82 124 187 ? 376
(a) 271
(c) 257 240242
(e) 249

ANSWER KEY

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

56.e 57.d 58.b 59.c 60.a 61.d 62.e 63.b 64.e
 65.a 66.c 67.d 68.c 69.a 70.d 71.b 72.c 73.d
 74.c 75.b 76.c 77.c 78.b 79.a 80.a 81.b 82.a
 83.c 84.d 85.e 86.e 87.e 88.b 89.a 90.e 91.a
 92.a 93.c 94.c 95.b 96.c 97.c 98.a 99.d
 100.a 101.a 102.b 103.c 104.a 105.d 106.c
 107.b 108.a 109.b 110.b 111.e 112.c 113.c
 114.c 115.c 116.b 117.b 118.e 119.c 120.e
 121.d 122.a 123.d 124.a 125.a 126.b 127.d
 128.e 129.c 130.a 131.a 132.a 133.a 134.d
 135.e 136.d 137.d 138.d 139.e 140.e 141.e
 142.b 143.c 144.d 145.d 146.a 147.e 148.e
 149.a 150.a 151.d 152.c 153.e 154.d 155.a
 156.d 157.d 158.d 159.c 160.c 161.c 162.a
 163.d 164.b 165.a 166.b 167.e 168.a 169.e
 170.d 171.e 172.d 173.d 174.a 175.c 176.c
 177.c 178.e 179.d 180.d 181.a 182.d 183.d
 184.d 185.e 186.e 187.d 188.c 189.d 190.c
 191.c 192.d 193.b 194.b 195.b 196.b 197.b
 198.e 199.d 200.c 201.c 202.c 203.c 204.a
 205.b 206.a 207.c 208.e 209.e 210.c 211.d
 212.d 213.a 214.a 215.d 216.b 217.a 218.c
 219.e 220.d 221.e 222.a 223.a 224.a 225.d
 226.b 227.b 228.b 229.b 230.d 231.a 232.b
 233.c 234.a 235.d 236.a 237.b 238.c 239.e
 240.b 241.e 242.c 243.e 244.d 245.a 246.e
 247.c 248.b 249.e 250.d 251.a 252.c 253.e
 254.e 255.d 256.a 257.d 258.a 259.c 260.b
 261.c 262.a 263.e 264.b 265.b 266.b 267.d
 268.e 269.a 270.e 271.b 272.d 273.a 274.d
 275.c 276.a 277.b 278.e 279.a 280.a 281.d
 282.a 283.b 284.b 285.c 286.e 287.e 288.a
 289.b 290.e 291.e 292.d 293.b 294.b 295.d
 296.e 297.c 298.a 299.e 300.c 301.e 302.e
 303.d 304.e 305.b 306.a 307.c 308.c 309.d
 310.b 311.e 312.c 313.a 314.d 315.b 316.c
 317.e 318.d 319.C 320.a

DETAILED SOLUTIONS

(1)

(e) The pattern of the number series is:

$$\begin{aligned}
 0 + 1 \times 6 &= 6 \\
 6 + 2 \times 9 &= 24 \\
 24 + 3 \times 12 &= 60 \\
 60 + 4 \times 15 &= 120 \\
 120 + 5 \times 18 &= 210 \\
 210 + 6 \times 21 &= 210 + 126 \\
 &= [336]
 \end{aligned}$$

(2)

(d) The pattern is :

$$\begin{aligned}
 1 \times 1 + 1 &= 1 + 1 = 2 \\
 2 \times 2 + 2 &= 4 + 2 = 6 \\
 6 \times 3 + 3 &= 18 + 3 = 21 \\
 21 \times 4 + 4 &= 84 + 4 = 88 \\
 88 \times 5 + 5 &= 440 + 5 = [445]
 \end{aligned}$$

(3)

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

$$\begin{aligned}
 1 \times 2 + 2 \times 2 &= 6 \\
 6 \times 4 + 4 \times 3 &= 25 \\
 36 \times 6 + 6 \times 4 &= 240 \\
 240 \times 8 + 8 \times 5 &= 1960 \\
 1960 \times 10 + 10 \times 6 &= [19660]
 \end{aligned}$$

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

(4)

(d) The pattern is :

$$\begin{aligned}
 10 \times (1/2) + 5 &= 5 + 5 = 10 \\
 10 \times 1 + 6 &= 10 + 6 = 16 \\
 16 \times (3/2) + 7 &= 24 + 7 = 31 \\
 31 \times 2 + 8 &= 62 + 8 = 70 \\
 70 \times (5/2) + 9 &= 175 + 9 = [184]
 \end{aligned}$$

(5)

$$\begin{aligned}
 \text{(a) } 10 \times (3/2) &= 15 \\
 15 \times (4/4) &= 15 \\
 15 \times (5/6) &= 12.5 \\
 12.5 \times (6/8) &= 9.375 \\
 9.375 \times (7/10) &= 6.5625 \\
 \therefore ? &= 6.5625 \times (8/12) = [4.375]
 \end{aligned}$$

(6)

(a) The pattern is :

$$\begin{aligned}
 11 + 16 &= 27 \\
 27 + 21 (= 16 + 5) &= 48 \\
 48 + 36 (= 21 + 3 \times 5) &= 84 \\
 84 + 61 (= 36 + 5 \times 5) &= 145 \\
 145 + 96 (= 61 + 7 \times 5) &= [241]
 \end{aligned}$$

(7)

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

$$\begin{array}{ccccccccccc}
 12 & 14 & 17 & 13 & 8 & 14 & 21 & 13 & 4 & [14] \\
 \downarrow & \uparrow & \downarrow & \uparrow & \downarrow & \uparrow & \downarrow & \uparrow & \downarrow & \uparrow \\
 +2 & +3 & -4 & -5 & +6 & +7 & -8 & -9 & +10 &
 \end{array}$$

Hence, 14 will come place of the question mark.

(8)

$$\begin{aligned}
 \text{(b) } 12 \times 1 + 2 \times 1 &= 12 + 2 = 14 \\
 14 \times 2 + 2 \times 2 &= 28 + 4 = 32 \\
 32 \times 3 + 2 \times 3 &= 96 + 6 = 102 \\
 102 \times 4 + 2 \times 4 &= 408 + 8 = 416 \\
 416 \times 5 + 2 \times 5 &= 2080 + 10 = 2090 \\
 \therefore ? &= 2090 \times 6 + 2 \times 6 \\
 &= 12540 + 12 = [12552]
 \end{aligned}$$

(9)

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



$$120 / 8 = 7$$

$$15 \times 7 = 105$$

$$105 / 6 = 17.5$$

$$17.5 \times 5 = 87.5$$

$$\therefore ? = 87.5 / 4 = 21.875$$

Hence, 21.875 will replace the question mark.

(10)

(a)

$$1200 / 2.5 = 480$$

$$480 / 2.5 = 192$$

$$192 / 2.5 = 76.8$$

$$76.8 / 2.5 = 30.72$$

$$30.72 / 2.5 = 12.288$$

$$\therefore ? = 12.288 / 2.5 = [4.9152]$$

(11)

(e) The pattern is :

$$123 + 1 \times 17 = 123 + 17 = 140$$

$$140 - 2 \times 17 = 140 - 34 = 106$$

$$106 - 3 \times 17 = 106 - 51 = 157$$

$$157 - 4 \times 17 = 157 - 68 = 89$$

$$89 + 5 \times 17 = 89 + 85 = [174]$$

(12)

(e) The pattern is :

$$13 \times 0.5 - 0.5 = 6.5 - 0.5 = 6$$

$$6 \times 1 - 1 = 6 - 1 = 5$$

$$5 \times 1.5 - 1.5 = 7.5 - 1.5 = 6$$

$$6 \times 2 - 2 = 12 - 2 = 10$$

$$10 \times 2.5 - 2.5 = 25 - 2.5 = [22.5]$$

(13)

(a) The pattern is :

$$13 \times 1 + 1^2 = 13 + 1 = 14$$

$$14 \times 2 + 2^2 = 28 + 4 = 32$$

$$32 \times 3 + 3^2 = 96 + 9 = 105$$

$$105 \times 4 + 4^2 = 420 + 16 = 436$$

$$436 \times 5 + 5^2 = 2180 + 25 = [2205]$$

(14)

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

$$13 + 3 = 16$$

$$16 + 5 = 21$$

$$21 + 7 = 28 \neq [27]$$

$$28 + 11 = 39$$

$$39 + 13 = 52$$

$$52 + 17 = 69$$

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

(15)

(c) The pattern is :

$$139 - 4 = 135$$

$$135 - 7 (=4 + 3) = 128$$

$$128 - 12 (=7 + 5) = 116$$

$$116 - 19 (=12 + 7) = 97$$

$$97 - 28 (=19 + 9) = [69]$$

(16)

(d) The pattern is :

$$147 + 1^2 = 147 + 1 = 148$$

$$148 + 1^2 + 2^2 = 148 + 5 = 153$$

$$153 + 1^2 + 2^2 + 3^2 = 167$$

$$167 + 1^2 + 2^2 + 3^2 + 4^2 =$$

$$167 + 30 = 197$$

$$197 + 30 + 5^2 = 197 + 55$$

$$= [252]$$

(17)

(b) The pattern of the number series is:

$$13 + 3 = 16$$

$$16 + (3 + 3) = 22$$

$$22 + (6 + 5) = 33$$

$$33 + (11 + 7) = 51$$

$$51 + (18 + 9) = [78]$$

(18)

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

$$25 = 5^2$$

$$16 = 4^2$$

$$? = 3^2 = [9]$$

$$4 = 2^2 \text{ and}$$

$$1 = 1^2$$

(19)

(a) The Pattern is :

$$3 \times 1 + 1^2 = 3 + 1 = 4$$

$$4 \times 2 + 2^2 = 8 + 4 = 12$$

$$12 \times 3 + 3^2 = 36 + 9 = 45$$

$$45 \times 4 + 4^2 = 180 + 16 = 196$$

(20)

(b) The Pattern is:

$$16 \times 0.5 = 8 \quad 8 \times 1.5 = 12$$

$$12 \times 2.5 = 30 \quad 30 \times 3.5 = [105]$$

(21)

(c) The pattern of the number of series is:

$$17 \times 3 + 1 = 51 + 1 = 52$$

$$52 \times 3 + 2 = 156 + 2 = 158$$

$$158 \times 3 + 3 = 474 + 3 = 477$$

$$477 \times 3 + 4 = 1431 + 4 = [1435]$$

(22)

(c) The pattern of the number of series is:

$$17 \times 0.5 + 0.5 = 9$$

$$9 \times 1 + 1 = [10]$$

$$10 \times 1.5 + 1.5 = 16.5$$

$$16.5 \times 2 + 2 = 35$$

(23)

(c) The pattern is :

$$177 - 7 = 170$$

$$170 - 11 = 159$$

$$159 - 13 = 146$$

$$146 - 17 = [129]$$

$$129 - 19 = 110$$

Note: Consecutive Prime Numbers have been subtracted.



(24)

(e) The pattern is :

$$18 + 1 = 19$$

$$19 + 5 (=1 + 2^2) = 24$$

$$24 + 13 (=5 + 2^3) = 37$$

$$37 + 29 (=13 + 2^4) = 66$$

$$66 + 61 (=29 + 2^5) = [127]$$

(25)

(b) The pattern is :

$$18 + (1^3 - 1) = 18 + 0 = 18$$

$$18 + (2^3 - 2) = 18 + 6 = 24$$

$$24 + (3^3 - 3) = 24 + 24 = 48$$

$$48 + (4^3 - 4) = 48 + 60 = 108$$

$$108 + (5^3 - 5) = 108 + 120 = [228]$$

(26)

(b) The pattern is :

$$19 + 0.6 \times 1 = 19.6$$

$$19.6 + 2 \times 0.6 = 19.6 + 1.2 = 20.8$$

$$20.8 + 1.2 \times 2 = 20.8 + 2.4 = 23.2$$

$$23.2 + 2.4 \times 2 = 23.2 + 4.8 = 28$$

$$28 + 4.8 \times 2 = 28 + 9.6 = [37.6]$$

(27)

(28)

(a) The pattern is :

$$2 \times 6 + 1^2 = 15 - 1 = 13$$

$$13 \times 5 + 2^2 = 65 + 4 = 69$$

$$69 \times 4 + 3^2 = 276 + 9 = 285$$

$$285 \times 3 + 4^2 = 855 + 16 = 871$$

$$871 \times 2 + 5^2 = 1742 + 25 = 1767$$

(29)

(c) The pattern is :

$$2 + 1^3 = 2 + 1 = 3$$

$$3 + 2^3 = 2 + 8 = 6$$

$$11 + 3^3 = 11 + 27 = 38$$

$$38 + 4^3 = 38 + 64 = 102$$

$$102 + 5^3 = 102 + 125 = [227]$$

(30)

(d) The pattern of the number series is:

$$20 + 1^2 = 21$$

$$21 + 2^2 = 25$$

$$25 + 3^2 = 34$$

$$34 + 4^2 = 50$$

$$50 + 5^2 = [75]$$

(31)

(a) The pattern is :

$$23 + 1 \times 19.2 = 42.2$$

$$42.2 + 2 \times 19.2 = 80.6$$

$$80.6 + 4 \times 19.2 = 157.4$$

$$157.4 + 8 \times 19.2 = 311$$

$$311 + 16 \times 19.2 = 311 + 307.2 = [618.2]$$

(32)

(a) The pattern is :

$$24 + 2 = 26$$

$$26 - 6 (= 2 + 4) = 20$$

$$20 + 12 (= 6 + 6) = 32$$

$$32 - 20 (= 12 + 8) = 12$$

$$12 + 30 (= 20 + 10) = [42]$$

(33)

(c) The pattern of the number series is:

$$28 + 11 = 39$$

$$39 + 24 (= 11 + 13) = 63$$

$$63 + 39 (=24 + 15) = 102$$

$$102 + 56 (=39 + 17) = 158$$

$$158 + 75 (=56 + 19) = [233]$$

(34)

(e) The pattern of the number of series is:

$$(286/2) - 1 = 143 - 1 = 142$$

$$(142/2) - 1 = 71 - 1 = [70]$$

$$(70/2) - 1 = 35 - 1 = -1 = 34$$

$$(34/2) - 1 = 17 - 1 = 16$$

(35)

(e) The pattern is :

$$16 - 1^2 = 16 - 1 = 15$$

$$15 + 2^2 = 15 + 4 = 19$$

$$19 - 3^2 = 19 - 9 = 10$$

$$10 + 4^2 = 10 + 16 = 26$$

$$26 - 5^2 = 26 - 25 = 1$$

$$1 + 6^2 = 1 + 36 = [37]$$

(36)

(b) The pattern is :

$$300 - 2 (= 1 + 1^3) = 298$$

$$298 + 9 (=1 + 2^3) = 307$$

$$307 - 28 (= 1 + 3^3) = 279$$

$$279 + 65 (= 1 + 4^3) = 344$$

$$344 - 126 (= 1 + 5^3) = [218]$$

(37)

(c) The pattern of the number series is:

$$32 + 1 \times 17 = 32 + 17 = 49$$

$$49 + 2 \times 17 = 49 + 34 = 83$$

$$83 + 4 \times 17 = 83 + 68 = 151$$

$$151 + 8 \times 17 = 151 + 136 = 287$$

$$287 + 16 \times 17 = 287 + 272 = 559$$

$$559 + 32 \times 17 = 559 + 544 = [1103]$$

(38)

(e) The pattern is :

$$320 - 12 \times 1 = 320 - 12 = 308$$

$$308 - 12 \times 2 = 308 - 24 = 284$$

$$284 - 24 \times 2 = 284 - 48 = 236$$

$$236 - 48 \times 2 = 236 - 96 = 140$$

$$140 - 96 \times 2 = 140 - 192 = [-52]$$

(39)

(e) The pattern of the number series is:

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



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

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

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

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

(40)

(c) The pattern of the number series is:

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

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

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

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

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

(41)

(b) The pattern of the number series is:

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

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

$$(1012/2) + 8 = \mathbf{[514]}$$

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

(42)

(e) The pattern is :

$$(47 - 1) / 2 = 46/2 = 23$$

$$(23 - 1) / 2 = 22/2 = 11$$

$$(11 - 1) / 2 = 10/2 = 5$$

$$(5 - 1) / 2 = 4/2 = 2$$

$$(2 - 1) / 2 = 1/2 = \mathbf{[0.5]}$$

(43)

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

$$499 + 1 \times 123 = 622$$

$$622 + 2 \times 123 = 868$$

$$868 = 3 \times 123 = 1237$$

$$1237 + 4 \times 123 = 1729$$

$$1729 + 5 \times 123 = 2344$$

$$\therefore ? = 2344 + 6 \times 123$$

$$= 2344 + 738 = \mathbf{[3082]}$$

(44)

(b) The pattern is :

$$5 \times 2 - 1^2 = 15 - 1 = \mathbf{[14]}$$

$$14 \times 3 - 2^2 = 28 + 4 = 32$$

$$32 \times 3 + 3^2 = 96 + 9 = 105$$

$$105 \times 4 + 4^2 = 420 + 16 = 436$$

$$436 \times 5 + 5^2 = 2180 + 25 = \mathbf{[2205]}$$

(45)

(c) The pattern is :

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

$$12 + 2 \times 7 = 12 + 14 = 26$$

$$26 + 2 \times 14 = 26 + 28 = \mathbf{[54]}$$

$$54 + 2 \times 28 = 54 + 56 = 110$$

$$110 + 2 \times 56 = 110 + 112 = 222$$

$$222 + 2 \times 112 = 222 + 224 = 446$$

(46)

(c) The Pattern is:

$$5 \times 0.5 + 0.5 = 2.5 + 0.5 = 3$$

$$3 \times 1.5 + 1.5 = 4.5 + 1.5 = 6$$

$$6 \times 2.5 + 2.5 = 15 + 2.5 = \mathbf{[17.5]}$$

$$17.5 \times 3.5 + 3.5 = 61.25 + 3.5$$

$$= 64.75$$

(47)

(c) The pattern is :

$$5 \times 2 + 6^2 = 10 + 36 = 46$$

$$46 \times 2 + 5^2 = 92 + 25 = 117$$

$$117 \times 2 + 4^2 = 234 + 16 = 250$$

$$250 \times 2 + 3^2 = 500 + 9 = 509$$

$$509 \times 2 + 2^2 = 1018 + 4 = \mathbf{[1022]}$$

$$1022 \times 2 + 1^2 = 2045$$

(48)

(a) The pattern of the number series is:

$$5 \times 1 + 1^2 = 6 \neq \mathbf{[7]}$$

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

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

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

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

(49)

(a) The pattern is :

$$9 + 1.8 = 10.8$$

$$10.8 + 2 \times 1.8 = 10.8 + 3.6$$

$$= 14.4$$

$$14.4 + 2 \times 3.6 = 14.4 + 7.2$$

$$= 21.6$$

$$21.6 + 2 \times 7.2 = 21.6 + 14.4 = \mathbf{[36]}$$

$$36 + 2 \times 14.4 = 36 + 28.8 = 64.8$$

(50)

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

$$529 = 23 \times 23$$

$$841 = 29 \times 29$$

$$961 = 31 \times 31$$

$$1369 = 37 \times 37$$

$$1681 = 41 \times 41$$

$$1849 = 43 \times 43$$

$$\therefore ? = 47 \times 47 = 2209$$

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

(51)

(a) The pattern is :

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

$$12 \times 2 + 2 \times 4 = 32$$

$$32 \times 3 + 3 \times 3 = 105$$

$$105 \times 4 + 4 \times 2 = \mathbf{[428]}$$

(52)

(d) The pattern of the number series is:

$$7 + 2 = 9$$

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

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

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

$$95 + (50 + 32) = 177$$

(53)

(c) The pattern is :



$$44 \times 1.5 = [66]$$

$$66 \times 1.5 = 99$$

$$99 \times 1.5 = 148.5$$

$$148.5 \times 1.5 = 222.75$$

$$222.75 \times 1.5 = 334.125$$

(54)

(55)

(a) The pattern of the number of series is:

$$6 \times 1 + 1 \times 7 = 6 + 7 = 13$$

$$13 \times 2 + 2 \times 6 = 26 + 12 = 38$$

$$38 \times 3 + 3 \times 5 = 114 + 15 = [129]$$

$$129 \times 4 + 4 \times 4 = 516 + 16 = 532$$

(56)

(e) The pattern of the number series is:

$$(600 / 5) + 5 = 125$$

$$(125 / 5) + 5 = 30$$

$$(30 / 5) + 5 = [11]$$

$$(11 / 5) + 5 = 7.2$$

(57)

(d) The pattern is :

$$(606 / 3) - 1 = 202 - 1 = 201$$

$$(201 / 3) - 1 = 67 - 1 = 66$$

$$(66 / 3) - 1 = 22 - 1 = 21$$

$$(21 / 3) - 1 = 7 - 1 = 6$$

$$(6 / 3) - 1 = 2 - 1 = [1]$$

(58)

(b) The Pattern is:

$$7 \times 2 - 1 = 14 - 1 = 13$$

$$13 \times 2 - 1 = 26 - 1 = [25]$$

$$25 \times 2 - 1 = 50 - 1 = 49$$

$$49 \times 2 - 1 = 98 - 1 = 97$$

(59)

(c) The pattern is :

$$8 \times (1/2) = 4$$

$$4 \times (3/2) = 6$$

$$6 \times (5/2) = 15$$

$$15 \times (7/2) = [52.5]$$

$$52.5 \times (9/2) = 236.25$$

(60)

(b) The pattern is :

$$500 - 16 = 484$$

$$484 - 33 (=16 + 17) = 451$$

$$451 - 67 (=33 + 2 \times 17) = 384$$

$$384 - 118 (=67 + 3 \times 17) = 266$$

$$266 - 186 (=118 + 4 \times 17) = [80]$$

(61)

(d) The Pattern is:

$$9 \times 2 - 1 = 18 - 1 = 17$$

$$17 \times 2 - 1 = 34 - 1 = 33$$

$$33 \times 2 - 1 = 66 - 1 = 65$$

$$65 \times 2 - 1 = 130 - 1 = 129$$

(62)

(e) The pattern is :

$$9 \times (1/2) - (1/2) = 4$$

$$4 \times 1 - 1 = 4 - 1 = 3$$

$$3 \times (3/2) - (3/2) = 3$$

$$3 \times 2 - 2 = 6 - 2 = 4$$

$$4 \times (5/2) - (5/2) = 10 - (5/2) = 15/2$$

$$= [7.5]$$

(63)

(a) The pattern is :

$$3 \times 7 - 6 = 21 - 6 = 15$$

$$15 \times 6 - 5 = 90 - 5 = [85]$$

$$85 \times 5 - 4 = 425 - 4 = 421$$

$$421 \times 4 - 3 = 1684 - 3 = 1681$$

$$1681 \times 3 - 2 = 5043 - 2 = 5041$$

(64)

(e) $0 + 5 = 5$

$$5 + 13 = 18$$

$$18 + 25 = 43$$

$$43 + 41 = 84$$

$$84 + 61 = 145$$

$$\therefore ? = 145 + 85 [230]$$

(65)

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

$$1 = 1^3$$

$$? = 2^3 = [8]$$

$$27 = 3^3$$

$$64 = 4^3$$

$$125 = 5^3$$

(66)

(c) $1 \times 3 = 3$

$$3 \times 8 = 24$$

$$24 \times 15 = 360$$

$$360 \times 24 = 8640$$

$$8640 \times 35 = 302400$$

$$\therefore ? = 302400 \times 48$$

$$= [14515200]$$

(67)

(d) $10 \times 1 + 1 \times 7 = 10 + 7 = 17$

$$17 \times 2 + 2 \times 7 = 34 + 14 = 48$$

$$48 \times 3 + 3 \times 7 = 144 + 21 = 165$$

$$165 \times 4 + 4 \times 7 = 660 + 28$$

$$668 \times 5 + 5 \times 7 = 3340 + 35 = 3475$$

$$\therefore ? = 3475 \times 6 + 6 \times 7$$

$$= 20850 + 42 = [20892]$$

(68)

(c) The pattern of the number series is:

$$14 - 10 = 4$$

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

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

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

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

$$140 + 248 = [300]$$

(69)

(b) The pattern is :



$$11.2 + 1 \times 1.7 = 12.9$$

$$12.9 - 2 \times 1.7 = 12.9 - 3.4$$

$$= 9.5$$

$$9.5 + 3 \times 1.7 = 9.5 + 5.1 = 14.6$$

$$14.6 - 4 \times 1.7 = 14.6 - 6.8 = 7.8$$

$$7.8 + 5 \times 1.7 = 7.8 + 8.5 = \mathbf{[16.3]}$$

(70)

(d) The pattern is :

$$12 \times 4 = \mathbf{[48]}$$

$$48 \times 3.5 = 168$$

$$168 \times 3 = 504$$

$$504 \times 2.5 = 1260$$

$$1260 \times 2 = 2520$$

(71)

(b) The pattern is :

$$123 + 11 \times 14 = 123 + 154 = 277$$

$$277 + 13 \times 14 = 277 + 182 = 459$$

$$459 + 15 \times 14 = 459 + 210 = 669$$

$$669 + 15 \times 14 = 669 + 238 = 907$$

$$907 + 19 \times 14 = 907 + 266 = \mathbf{[1173]}$$

(72)

(c) The pattern is:

$$13 + 12 = 25$$

$$25 + 15 = 40$$

$$40 + 18 = 58 \neq \mathbf{[57]}$$

$$58 + 21 = 79$$

(73)

(d) The pattern of the number series is:

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

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

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

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

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

(74)

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

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

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

$$21 \times 3 - 4 = 64 - 4 = 59$$

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

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

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

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

Hence, 6887 will replace the question mark.

(75)

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

$$1548 \quad 516 \quad 129 \quad 43 \quad \boxed{10.75}$$

$$\begin{array}{ccccccc} & \uparrow & & \uparrow & & \uparrow & & \uparrow \\ & \div 3 & & \div 4 & & \div 3 & & \div 4 \end{array}$$

Hence, 10.75 will replace the question mark.

(76)

(c) The pattern of the number series is :

$$\mathbf{[14]} + 1 \times 2 = 16$$

$$16 + 3 \times 4 = 16 + 12 = 28$$

$$28 + 5 \times 6 = 28 + 30 = 58$$

$$58 + 7 \times 8 = 58 + 56 = 114$$

$$114 + 9 \times 10 = 114 + 90 = 204$$

(77)

(c) The pattern of the number series is:

$$17 + 272 = 289$$

$$289 + 136 = 425$$

$$425 + 68 = 493$$

$$493 + 34 = 527$$

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

(78)

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

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

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

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

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

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

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

$$\therefore ? = 24 \times 24 \times 24 = \mathbf{[13824]}$$

Hence, 13824 will replace the question mark.

(79)

(a) The pattern is :

$$19 \times 0.5 + 0.5 = 10$$

$$10 \times 1 + 1 = 10 + 1 = 11$$

$$11 \times 1.5 + 1.5 = 16.5 + 1.5 = 18$$

$$18 \times 2 + 2 = 36 + 2 = 38$$

$$38 \times 2.5 + 2.5 = 95 + 2.5$$

$$= \mathbf{[97.5]}$$

(80)

(a) The series is based on following pattern:

$$2 + 1^2 - 0 = 3$$

$$3 + 2^2 - 1 = \mathbf{[6]}$$

$$6 + 3^2 - 2 = 13$$

$$13 + 4^2 - 3 = 26$$

$$26 + 5^2 - 4 = 147$$

$$147 + 6^2 - 5 = 78$$

Therefore, the number 7 is wrong.

\therefore 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.

(81)

(b) The pattern is :

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

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

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

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

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

(82)

(b) The pattern of the number series is:

$$16 + 6 = 22$$



$$22 + 11 = 33$$

$$33 + 16 = 49$$

$$49 + 21 = 70$$

$$70 + 26 = [96]$$

(83)

(c) The pattern is :

$$576 - 224 = 352$$

$$752 - 576 = 176$$

$$840 - 752 = 88$$

$$884 - 840 = 44$$

$$\therefore ? = 884 + 22 = [906]$$

(84)

(d) The pattern is :

$$24 + 8^3 = 24 + 512 = 536$$

$$536 - 7^2 = 536 - 49 = 487$$

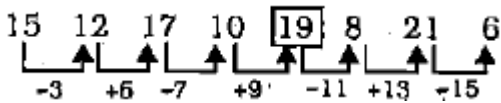
$$487 + 6^3 = 487 + 216 = 703$$

$$703 - 5^2 = 703 - 25 = 678$$

$$678 + 4^3 = 678 + 64 = [742]$$

(85)

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



Hence, 19 will come in place of the question mark

(86)

(e) The pattern is :

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

$$4 \times 2 + 1 = 8 + 1 = 9$$

$$9 \times 3 + 1 = 27 + 1 = 28$$

$$28 \times 4 + 1 = 112 + 1 = 113$$

$$113 \times 5 + 1 = 565 + 1 = [566]$$

(87)

(e) The pattern of the number series is:

$$32 + 2^2 = 36$$

$$36 + 4^2 = 52$$

$$52 + 6^2 = 88$$

$$88 + 8^2 = 152$$

$$152 + 10^2 = [252]$$

(88)

(b) The pattern is :

$$33 \times (1/2) = 16.5$$

$$16.5 \times 1 = [16.5]$$

$$16.5 \times (3/2) = 24.75$$

$$24.75 \times 2 = 49.5$$

$$49.5 \times (5/2) = 123.75$$

(89)

(a) The pattern is :

$$4 + 1.8 \times 1 = 4 + 1.8 = 5.8$$

$$5.8 + 1.8 \times 2 = 5.8 + 3.6 = 9.4$$

$$9.4 + 3.6 \times 2 = 9.4 + 7.2 = 16.6$$

$$16.6 + 7.2 \times 2 = 16.6 + 14.4$$

$$= [31]$$

$$31 + 14.4 \times 2 = 31 + 28.8$$

$$= 59.8$$

(90)

(e) The pattern is :

$$4 \times 2 + 1 = 8 + 1 = 9$$

$$9 \times 3 + 2 = 27 + 2 = 29$$

$$29 \times 4 + 3 = 116 + 3 = [119]$$

$$119 \times 5 + 4 = 595 + 4 = 599$$

$$599 \times 6 + 5 = 3594 + 5 = 3599$$

(91)

(a) The pattern is:

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

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

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

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

$$940 \times 5 - 10 = 4700 - 10 = [4690]$$

(92)

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

$$40280625 / 55 = 732375$$

$$732375 / 45 = 16275$$

$$16275 / 35 = 465$$

$$465 / 25 = 18.6$$

$$18.6 / 15 = 1.24$$

$$\therefore ? = 1.24 / 5 = [0.248]$$

Hence, 0.248 will replace the question mark.

(93)

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

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

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

$$2624 \times 6^2 = [94464]$$

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

Hence, 94464 will replace the question mark.

(94)

(b) The pattern is :

$$6 \times 1 - 2 = 6 - 2 = 4$$

$$4 \times 2 - 3 = 8 - 3 = 5$$

$$5 \times 3 - 4 = 15 - 4 = 11$$

$$11 \times 4 - 5 = 44 - 5 = 39$$

$$39 \times 5 - 6 = 195 - 6 = 189$$

(95)

(b) The pattern is :

$$456.5 - 407 = 49.5$$

$$407 - 368.5 = 38.5$$

$$368.5 - 341 = 27.5$$

$$341 - 324.5 = 16.5$$

$$\therefore ? = 324.5 - 5.5 = [319]$$

(96)

(c) The pattern of the number series is:

$$586 + 1 = 587$$

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

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

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

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

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



(97)

(c) The pattern is:

$$6 \times 7 = 42$$

$$42 \times 6 = [252]$$

$$252 \times 5 = 1260$$

(98)

(a) The pattern of the number series is:

$$656 - 224 = 432$$

$$432 - 112 = 320$$

$$320 - 56 = 264$$

$$264 - 28 = 236$$

$$236 - 14 = [222]$$

(99)

(d) The pattern is:

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

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

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

$$9 \times 2 + 2 = 18 + 2 = [20]$$

(100)

(a) The pattern is:

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

$$12 \times 2 + 2 \times 4 = 32$$

$$32 \times 3 + 3 \times 3 = 105$$

$$105 \times 4 + 4 \times 2 = [428]$$

(101)

(a) The pattern of the number series is:

$$7 + 1^2 = 8$$

$$8 + 4^2 = 24$$

$$24 + 9^2 = 105$$

$$105 + 16^2 = 361$$

$$361 + 25^2 = [986]$$

(102)

(b)

$$29 \times 29 = 841$$

$$31 \times 31 = 961$$

$$33 \times 33 = 1089$$

$$35 \times 35 = 1225$$

$$37 \times 37 = 1369$$

$$39 \times 39 = 1521$$

$$\therefore ? = 41 \times 41 = 1681$$

(103)

(c) The pattern is:

$$9 \times 2 - 1 = 17$$

$$17 \times 2 - 1 = 33$$

$$33 \times 2 - 1 = 65$$

$$65 \times 2 - 1 = [129]$$

(104)

(a) The pattern is :

$$9 \times 1 + 1^2 = 9 + 1 = 10$$

$$10 \times 3 + 3^2 = 30 + 9 = 39$$

$$39 \times 5 + 5^2 = 195 + 25 = 220$$

$$220 \times 7 + 7^2 = 1540 + 49 = [1589]$$

$$1589 \times 9 + 9^2 = 14301 + 81$$

$$= 14382$$

(105)

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

949	189.8	56.94	22.776	11.388	6.8328
└───┬───┬───┬───┬───┬───┘		└───┬───┬───┬───┬───┬───┘		└───┬───┬───┬───┬───┬───┘	
↑		↑		↑	
× 0.2		× 0.3		× 0.4	
× 0.5		× 0.6			

Hence, 56.94 will come in the place of the question mark.

(106)

(c)

$$936 - 1 \times 36 = 936 - 36 = 927$$

$$927 - 2 \times 36 = 927 - 72 = 855$$

$$855 - 2 \times 36 = 855 - 108 = 747$$

$$747 - 4 \times 36 = 747 - 144 = 603$$

$$603 - 5 \times 36 = 423 - 216 = [207]$$

(107)

(b) The pattern of the number series is:

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

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

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

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

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

$$445 \times 6 + 6 = [2676]$$

(108)

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

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

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

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

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

$$259 + 92 = 351$$

Hence, [351] will be replace the question mark.

(109)

(e) The pattern of the number series is:

$$64 - 10 = 54 \quad 54 + 15 = 69$$

$$69 - 20 = 49 \quad 49 + 25 = 74$$

$$74 - 30 = 44$$

$$44 + 35 = [79]$$

(110)

(a) The pattern is :

$$20 + 3 = 23$$

$$23 + 7 (= 3 + 4) = 30$$

$$30 + 13 (= 7 + 6) = 43$$

$$43 + 21 (= 13 + 8) = 64$$

$$64 + 31 (= 21 + 10) = [95]$$

(111)

(e) The pattern of the number series is:

$$27 + 11 = 38$$

$$38 + 33 = 71$$

$$71 + 55 = 126$$

$$126 + 77 = 203$$

$$203 + 99 = [302]$$

(112)



(c) The pattern of the number series is:

$$\begin{aligned} 435 - 9 \times 9 &= 354 \\ 354 - 9 \times 8 &= 282 \\ 282 - 9 \times 7 &= 219 \\ 219 - 9 \times 6 &= 165 \\ 165 - 9 \times 5 &= \mathbf{[120]} \end{aligned}$$

(113)

(c) The pattern of the number series is:

$$\begin{aligned} 495 - 1 \times 10 &= 485 \\ 485 - 2 \times 10 &= 465 \\ 465 - 4 \times 10 &= 425 \\ 425 - 8 \times 10 &= 345 \\ 345 - 16 \times 10 &= \mathbf{[185]} \end{aligned}$$

(114)

(e) The pattern is:

$$\begin{aligned} 5 + 7^2 &= 54 \\ 54 + 6^2 &= 90 \\ 90 + 5^2 &= 115 \\ 115 + 4^2 &= 131 \\ 131 + 3^2 &= 140 \\ 140 + 2^2 &= 140 + 4 = \mathbf{[144]} \end{aligned}$$

(115)

(c) The pattern of the number series is:

$$\begin{aligned} 50 \times 1.2 &= 60 \\ 60 \times 1.25 &= 75 \\ 75 \times 1.3 &= 97.5 \\ 97.5 \times 1.35 &= \mathbf{[131.625]} \\ 131.625 \times 1.4 &= 184.275 \end{aligned}$$

(116)

(b) The pattern of the number series is:

$$\begin{aligned} 62 + 5^2 &= 62 + 25 = 87 \\ 87 + 10^2 &= 87 + 100 = 187 \\ 187 + 15^2 &= 187 + 225 = 412 \\ 412 + 20^2 &= 412 + 400 = 812 \\ 812 + 25^2 &= 812 + 625 = \mathbf{[1437]} \end{aligned}$$

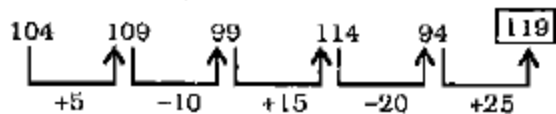
(117)

(b) The pattern of the number series is:

$$\begin{aligned} 9 \times 2 - 3 &= 18 - 3 = 15 \\ 15 \times 2 - 3 &= 30 - 3 = 27 \\ 27 \times 2 - 3 &= 54 - 3 = 51 \\ 51 \times 2 - 3 &= 102 - 3 = 99 \\ 99 \times 2 - 3 &= 198 - 3 = \mathbf{[195]} \end{aligned}$$

(118)

(e) The given series is based on the following pattern:



Hence, 119 will come in place of the question mark.

(119)

(c) The pattern of the number series is:

$$\begin{aligned} 12 \times 1 + 3 \times 1 &= 15 \\ 15 \times 2 + 3 \times 2 &= 36 \end{aligned}$$

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

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

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

(120)

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

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

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

$$264 \times 12 + 1.5 \times 4 = \mathbf{[2174]}$$

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

Hence, 3174 will replace the question mark.

(121)

(d) The pattern of the number series is:

$$18 + 9 = 27$$

$$27 + (9 + 13) = 49$$

$$49 (9 + 26) = 84$$

$$84 + (9 + 39) = 132$$

$$132 + (9 + 52) = \mathbf{[193]}$$

(122)

(a) The pattern of the number series is :

$$21 \times 0.5 = 10.5$$

$$10.5 \times 1 = \mathbf{[10.5]}$$

$$10.5 \times 1.5 = 15.75$$

$$15.75 \times 2 = 31.50$$

$$31.50 \times 2.5 = 78.75$$

(123)

(d) The pattern is :

$$121 \times 2 - 4 = 242 - 4 = 238$$

$$238 \times 2 - 4 = 476 - 4 = 472$$

$$472 \times 2 - 4 = 944 - 4 = \mathbf{[940]}$$

$$940 \times 2 - 4 = 1880 - 4 = 1876$$

$$1876 \times 2 - 4 = 3752 - 4 = 3748$$

(124)

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

$$12 \times 1 = 12$$

$$12 \times 1.5 = 18$$

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

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

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

$$\therefore ? = 170 \times (4 + 6.5) = \mathbf{[12285]}$$

Hence, 12285 will replace the question mark.

(125)

(a) The pattern is :

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

$$2 \times 2 + 2^3 = 4 + 8 = 12$$

$$12 \times 3 + 3^3 = 36 + 27 = 63$$

$$63 \times 4 + 4^3 = 252 + 64 = 316$$

$$316 \times 5 + 5^3 = 1580 + 125 = \mathbf{[1705]}$$

(126)

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

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

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

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

$$\therefore ? = 7^4 = 7 \times 7 \times 7 \times 7 = \mathbf{[2401]}$$



Hence 2401 will replace the question mark.

(127)

(d) The pattern of the number series is:

$$1 \times 7 = 7$$

$$7 \times 7 = 49$$

$$49 \times 7 = 343$$

$$343 \times 7 = [2401]$$

(128)

(e) The pattern is :

$$(1.1)^2 = 1.21$$

$$(1.2)^2 = 1.44$$

$$(1.3)^2 = 1.69$$

$$(1.4)^2 = 1.96$$

$$\therefore ? = (1.7)^2 = 2.89$$

(129)

(c) The series is based on following pattern:

$$1.7 + 1.5 = 3.2$$

$$3.2 - 0.5 = 2.7$$

$$2.7 + 1.5 = 4.2$$

$$4.2 - 0.5 = 3.7$$

$$3.7 + 1.5 = [5.2]$$

$$5.2 - 0.5 = 4.7$$

$$4.7 + 1.5 = 6.2$$

Therefore, the number 5.2 will come in place of question mark (?) in the series.

(130)

(a) The 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 the wrong number.

(131)

(a) The pattern is :

$$(100/2) + 2 = 50 + 2 = 52$$

$$(52/2) + 2 = 26 + 2 = 28$$

$$(28/2) + 2 = 14 + 2 = 16$$

$$(16/2) + 2 = 8 + 2 = 10$$

$$(10/2) + 2 = 5 + 2 = [7]$$

(132)

(a) The pattern of the number series is:

$$1050 \times (2/5) = 420$$

$$420 \times (2/5) = 168$$

$$168 \times (2/5) = 67.2$$

$$\therefore 10.752 \times (2/5) = [4.3008]$$

(133)

(a) The pattern is:

$$11 \times 1 + 1^2 = 11 + 1 = 12$$

$$12 \times 2 + 2^2 = 24 + 4 = 28$$

$$28 \times 3 + 3^2 = 84 + 9 = 93$$

$$93 \times 4 + 4^2 = 372 + 16 = 388$$

$$388 \times 5 + 5^2 = 1940 + 25 = [1965]$$

(134)

(d) The pattern of the number series is:

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

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

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

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

$$131 + 10^2 = 131 + 100 = [231]$$

(135)

(e) The pattern is:

$$11 \times 2 + 1 = 23$$

$$23 \times 2 + 1 = 47$$

$$47 \times 2 + 1 = 95$$

$$95 \times 2 + 1 = [191]$$

(136)

(d) The pattern is :

$$11 \times 2 + 3 = 22 + 3 = 25$$

$$25 \times 2 + 3 = 50 + 3 = 53$$

$$53 \times 2 + 3 = 106 + 3 = 109$$

$$109 \times 2 + 3 = 218 + 3 = 221$$

$$221 \times 2 + 3 = 442 + 3 = 445$$

$$445 \times 2 + 3 = 890 + 3 = 893$$

(137)

(d) The pattern of the number series is:

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

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

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

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

$$701 + 2 \times 368 = 701 + 736 = [1437]$$

(138)

(d) The pattern of the number series is:

$$11 \times 1 - 1 = 10$$

$$10 \times 2 - 2 = 18$$

$$18 \times 3 - 3 = 51$$

$$51 \times 4 - 4 = 200$$

$$200 \times 5 - 5 = [995]$$

(139)

(e)

$$5 + 2^2 = 5 + 4 = 9$$

$$9 + 3^2 = 9 + 9 = 18$$

$$18 + 4^2 = 18 + 16 = 34$$

$$34 + 5^2 = 34 + 25 = 59$$

$$59 + 6^2 = 59 + 36 = 95$$

$$\therefore ? = 95 + 7^2 = 95 + 49 = [144]$$

(140)

(e) The pattern of the number series is:

$$389 - 117 = 272$$

$$525 - 389 = 136$$

$$593 - 525 = 68$$

$$627 - 593 = 34$$

$$\therefore ? 627 + 17 = [644]$$

(141)

(a) The sequence is based on following pattern:



$$13 \times 3 - 3 = 33$$

$$33 \times 3 - 3 = 96$$

$$96 \times 3 - 3 = [285]$$

$$285 \times 3 - 3 = 852$$

Hence, 285 will replace the question mark.

(142)

(b) The pattern of the number series is:

$$12 \times 4 - 30 = 48 - 30 = 18$$

$$18 \times 4 - 36 = 72 - 36 = 36$$

$$36 \times 4 - 42 = 144 - 42 = 102$$

$$102 \times 4 - 48 = 408 - 48 = 360$$

$$360 \times 4 - 54 = 1440 - 54 = [1386]$$

(143)

(c) The pattern of the number series is:

$$12 + 5 \times 1 = 17$$

$$17 + 5 \times 3 = 32$$

$$32 + 5 \times 5 = 57$$

$$57 + 5 \times 7 = 92$$

$$92 + 5 \times 9 = [137]$$

(144)

(d) The pattern is:

$$12 \times 2 - 2 = 24 - 2 = 22$$

$$22 \times 2 - 2 = 44 - 2 = 42$$

$$42 \times 2 - 2 = 84 - 2 = 82$$

$$82 \times 2 - 2 = 164 - 2 = 162$$

$$162 \times 2 - 2 = 324 - 2 = [322]$$

(145)

(d) The pattern is:

$$12 \times 2 - 2 = 24 - 2 = 22$$

$$22 \times 2 - 2 = 44 - 2 = 42$$

$$42 \times 2 - 2 = 84 - 2 = 82$$

$$82 \times 2 - 2 = 164 - 2 = 162$$

$$162 \times 2 - 2 = 324 - 2 = [322]$$

(146)

(a) The pattern of the number series is:

$$12 \times 1 + 23 =$$

$$35 \times 2 + 23 = 35 + 46 = 81$$

$$81 \times 2 + 46 = 81 + 92 = 173$$

$$173 + 2 \times 92 = 173 + 184 = 357$$

$$357 + 2 \times 184 = 357 + 368 = [725]$$

(147)

(e) The pattern is:

$$120 + 1 \times 17 = 137$$

$$137 + 2 \times 17 = 137 + 34 = 171$$

$$\neq [178]$$

$$171 + 3 \times 17 = 171 + 51 = 222$$

$$222 + 4 \times 17 = 222 + 68 = 290$$

$$290 + 5 \times 17 = 290 + 85 = 375$$

$$375 + 6 \times 17 = 375 + 102 = 477$$

(148)

(e) The pattern of the number series is:

$$120 \times 2.5 + 20 = 320$$

$$320 \times 2.5 + 20 = [820]$$

$$820 \times 2.5 + 20 = 2070$$

$$2070 \times 2.5 + 20 = 5195$$

(149)

(a) The given number series is based on the following pattern:

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

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

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

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

$$= 259 + 92 = [351]$$

Hence, 351 will replace the question mark.

(150)

(a) The pattern is:

$$125 + 3 = 128$$

$$128 - 3^2 = 128 - 9 = 119$$

$$119 + 3^3 = 119 + 27 = 146$$

$$146 - 3^4 = 146 + 81 = 65$$

$$65 + 3^5 = 65 + 243 = [308]$$

(151)

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

$$13 \times 1 = 13$$

$$13 \times 5 = 65$$

$$65 \times 9 = 585$$

$$585 \times 13 = 7605$$

$$7605 \times 17 = 129285$$

$$\therefore ? = 129285 \times 21 = [2714985]$$

Hence, 2714985 will replace the question mark.

(152)

(a) The given series is based on the following pattern:

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

$$14 \times 2 + 2 = 30$$

$$30 \times 3 + 3 = 93$$

$$93 \times 4 + 4 = 376$$

$$376 \times 5 + 5 = 1885$$

$$\therefore ? = 1885 \times 6 + 6 = [11316]$$

Hence, number 11316 will replace the question mark.

(153)

(e) The pattern is:

$$13 + 6 = 19$$

$$19 + 11 (= 6 + 5) = 30$$

$$30 + 18 (= 11 + 7) = 48$$

$$48 + 27 (= 18 + 9) = 75$$

$$75 + 38 (= 27 + 11) = [113]$$

(154)

(d) The pattern of the number series is:

$$13 + 7 = 20$$

$$20 + 19 (= 7 + 12) = 39$$

$$39 + 39 (= 19 + 20) = 78$$

$$78 + 67 (= 39 + 28) = 145$$

$$145 + 103 (= 67 + 36) = [248]$$

(155)

$$13 - (-21) = 34$$



$$\begin{aligned}
 -21 - 34 &= -55 \\
 34 - (-55) &= 89 \\
 -55 - 89 &= -144 \\
 -89 - (-144) &= \mathbf{[233]}
 \end{aligned}$$

(156)

(d) The pattern of the number series is:

$$\begin{aligned}
 13 + 8 &= 21 \\
 21 + 8 + 7 &= 21 + 15 = 36 \\
 36 + 15 + 7 &= 36 + 22 = 58 \\
 58 + 22 + 7 &= 58 + 29 = 87 \\
 87 + 29 + 7 &= 87 + 36 = \mathbf{[123]}
 \end{aligned}$$

(157)

(d) The pattern of the number series is:

$$\begin{aligned}
 13 + 1 \times 12 &= 13 + 12 = 25 \\
 25 + 3 \times 12 &= 25 + 36 = 61 \\
 61 + 5 \times 12 &= 61 + 60 = 121 \\
 121 + 7 \times 12 &= 121 + 84 = 205 \\
 205 + 9 \times 12 &= 205 + 108 = \mathbf{[313]}
 \end{aligned}$$

(158)

(d) The pattern of the number series is :

$$\begin{aligned}
 13.76 + 1 \times 1.15 &= 14.91 \\
 14.91 + 2 \times 1.15 &= 14 + 2.30 \\
 &= 17.21 \\
 17.21 + 3 \times 1.15 &= 17.21 + 3.45 = 20.66 \\
 20.66 + 4 \times 1.15 &= 20.66 + 4.60 = \mathbf{[25.26]} \\
 25.26 + 5 \times 1.15 &= 25.26 + 5.75 = 31.01
 \end{aligned}$$

(159)

(c) The pattern is:

$$\begin{aligned}
 130 + 3^2 &= 130 + 9 = 139 \\
 139 + 4^2 &= 139 + 16 = 155 \\
 155 + 5^2 &= 155 + 25 = 180 \\
 180 + 6^2 &= 180 + 36 = 216 \\
 216 + 7^2 &= 216 + 49 = \mathbf{[265]}
 \end{aligned}$$

(160)

(c) The pattern is:

$$\begin{aligned}
 130 + 3^2 &= 139 \\
 139 + 4^2 &= 155 \\
 155 + 5^2 &= 180 \\
 180 + 6^2 &= 216 \\
 216 + 7^2 &= \mathbf{[265]}
 \end{aligned}$$

(161)

(c) The pattern is :

$$\begin{aligned}
 133 + 50 &= 183 \\
 183 + 58 &= 241 \\
 241 + 66 &= 307 \\
 307 + 74 &= 381 \\
 381 + 82 &= 463 \\
 463 + 90 &= \mathbf{[553]}
 \end{aligned}$$

(162)

(a) The given series is based on the following pattern: Numbers are cubes of consecutive prime numbers. i.e.

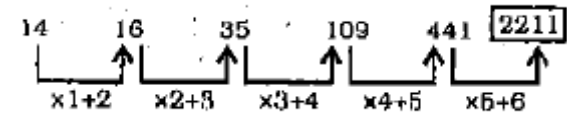
$$\begin{aligned}
 11^3 &= 1331 \\
 13^3 &= 2197
 \end{aligned}$$

$$\begin{aligned}
 17^3 &= 4913 \\
 19^3 &= 6859 \\
 23^3 &= \mathbf{[12167]} \\
 29^3 &= 24389
 \end{aligned}$$

Hence, 12167 will come in place of the question mark.

(163)

(d) The given series is based on the following pattern:



Hence, 2211 will come in place of the question mark.

(164)

(b) The pattern is:

$$\begin{aligned}
 14 + 990 &= 1004 \\
 1004 + (990/5) &= 1202 \\
 1202 + (198/4) &= 1251.5 \\
 1251.5 + 16.5 (=49.5/3) &= 1268 \\
 1268 + 8.25 &= \mathbf{[1276.25]}
 \end{aligned}$$

(165)

(a) The pattern of the number series is:

$$\begin{aligned}
 14 + 1^2 &= 15 \\
 15 + 2^3 &= 23 \\
 23 + 3^2 &= 32 \\
 32 + 4^3 &= 96 \\
 96 + 5^2 &= 96 + 25 = \mathbf{[121]}
 \end{aligned}$$

(166)

(b) The pattern of the number series is:

$$\begin{aligned}
 14 + 10 &= 24 \\
 24 + 19 (=10 + 9) &= 43 \\
 43 + 28 (=19 + 9) &= 71 \\
 71 + 37 (=28 + 9) &= 108 \\
 108 + 46 (=37 + 9) &= \mathbf{[154]}
 \end{aligned}$$

(167)

(e) The given number series is based on the following pattern:

$$\begin{aligned}
 14 \times 3 + 1.5 &= 43.5 \\
 43.5 \times 6 + 1.5 \times 2 &= 264 \\
 264 \times 12 + 1.5 \times 4 &= \mathbf{[3174]} \\
 3174 \times 24 + 1.5 \times 8 &= 76188
 \end{aligned}$$

Hence, 3174 will replace the question mark.

(168)

(a) The pattern is:

$$\begin{aligned}
 14 \times (1/2) - 1 &= 7 - 1 = 6 \\
 6 \times 1 - 1 &= 6 - 1 = 5 \\
 5 \times (3/2) - 1 &= 7.5 - 1 = 6.5 \\
 6.5 \times (4/2) - 1 &= 13 - 1 = 12 \\
 12 \times (5/2) - 1 &= 30 - 1 = \mathbf{[29]}
 \end{aligned}$$

(169)

(e) The pattern of the number series is:

$$\begin{aligned}
 144 + 29 &= 173 \\
 173 - 33 &= 140 \\
 140 + 29 &= 169
 \end{aligned}$$



$$169 - 33 = 136$$

$$136 + 29 = \mathbf{[165]}$$

(170)

(d) 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)

(e) The pattern of the number series is :

$$15 + 1^2 = \mathbf{[16]}$$

$$16 + 2^3 = 24$$

$$24 + 3^2 = 24 + 9 = 33$$

$$33 + 4^3 = 33 + 64 = 97$$

$$97 + 5^2 = 97 + 25 = 122$$

(172)

(a) The pattern is :

$$(158/2) - 1 = 79 - 1 = 78$$

$$(78/2) - 1 = 39 - 1 = 38$$

$$(38/2) - 1 = 19 - 1 = 18$$

$$(18/2) - 1 = 9 - 1 = 8$$

$$(8/2) - 1 = 4 - 1 = \mathbf{[3]}$$

(173)

(d) The pattern of the number series is:

$$15 + 3 = 18$$

$$18 - 2 = 18$$

$$16 + 3 = 19$$

$$19 - 2 = 17$$

$$17 + 3 = 20$$

$$20 - 2 = \mathbf{[18]}$$

(174)

(a) The pattern of the number series is:

$$19 - 15 = 4 = 2^2$$

$$83 - 19 = 64 = 4^3$$

$$119 - 83 = 36 = 6^2$$

$$631 - 119 = 512 = 8^3$$

$$\therefore ? = 631 + 10^2 = 631 + 100 = \mathbf{[730]}$$

(175)

(c) The pattern of the number series is:

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

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

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

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

$$75 + 6 \times 5 = \mathbf{[105]}$$

(176)

(c) The sequence is based on following pattern:

$$15 \times 1 + 1 \times 7 = 22$$

$$22 \times 2 + 2 \times 6 = 56 \neq 57$$

$$56 \times 3 + 3 \times 5 = 183$$

$$183 \times 4 + 4 \times 4 = \mathbf{[748]}$$

(177)

(178)

(e) The pattern of the number series is:

$$15 \times 2 - 1 \times 5 = 25$$

$$25 \times 2 - 2 \times 5 = 40$$

$$40 \times 2 - 3 \times 5 = 65$$

$$65 \times 2 - 4 \times 5 = \mathbf{[110]}$$

$$110 \times 2 - 5 \times 5 = 195$$

(179)

(d) The pattern is:

$$15 + 13 = 28$$

$$28 + 15 = 43$$

$$43 + 17 = 60$$

$$60 + 19 = 79$$

$$79 + 21 = 100 \neq \mathbf{[101]}$$

(180)

(d) The pattern is :

$$15 \times 2 - 1 = 30 - 1 = 29$$

$$29 \times 2 - 2 = 58 - 2 = 56$$

$$56 \times 2 - 4 (= 2 \times 2) = 112 - 4$$

$$= 108$$

$$108 \times 2 - 8 (= 2 \times 4) = 216 - 8$$

$$= 208$$

$$208 \times 2 - 16 (= 2 \times 8) = 416 - 16$$

$$= 400$$

$$400 \times 2 - 32 (= 2 \times 16) = 800 - 32$$

$$= \mathbf{[768]}$$

(181)

(a) The pattern is :

$$16 + 3 = 19$$

$$19 + 5 (= 3 + 2) = 24$$

$$24 + 9 (= 5 + 4) = 33$$

$$33 + 17 (= 9 + 8) = 50$$

$$50 + 33 (= 17 + 16) = \mathbf{[83]}$$

(182)

(d) The pattern of the number series is:

$$16 \times 1.5 = 24$$

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

$$60 \times 3.5 = 210$$

$$210 \times 4.5 = 945$$

(183)

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

$$16 \times 1.5 = 24$$

$$24 \times 2 = 48$$

$$48 \times 2.5 = 120$$

$$120 \times 3 = 360$$

$$360 \times 3.5 = 1260$$

$$\therefore ? = 1260 \times 4 = \mathbf{[5040]}$$

(184)

(d) The pattern is:

$$161 + 1 \times 2 = 163$$

$$163 + 2 \times 3 = 169$$

$$169 + 3 \times 4 = 169 + 12 = 181$$

$$181 + 4 \times 5 = 181 + 20 = \mathbf{[201]}$$

$$201 + 5 \times 6 = 201 + 30 = 231$$



(185)

(e) The pattern is:

$$17 + 1 \times 2 = 17 + 2 = 19$$

$$19 + 2 \times 3 = 19 + 6 = 25$$

$$25 + 3 \times 4 = 25 + 12 = 37$$

$$37 + 4 \times 5 = 37 + 20 = \mathbf{[57]}$$

$$57 + 5 \times 6 = 57 + 30 = 87$$

(186)

(d) The pattern is:

$$19 + 11 = 30$$

$$30 + 14 (= 11 + 3) = 44$$

$$44 + 23 (= 14 + 3^2) = 67$$

$$67 + 50 (= 23 + 3^3) = 117$$

$$\therefore ? = 117 (50 + 3^2) =$$

$$117 + 50 + 81 = \mathbf{[248]}$$

(187)

(d)

$$18 \times 1 + 2 = 18 + 2 = 20$$

$$20 \times 2 + 4 = 40 + 4 = 44$$

$$44 \times 3 + 6 = 132 + 6 = 138$$

$$138 \times 4 + 8 = 552 + 8 = 560$$

$$560 \times 5 + 10 = 2800 + 10 = 2810$$

$$\therefore ? = 2810 \times 6 + 12 = 16860$$

$$+ 12 = \mathbf{[16872]}$$

(188)

(c) The pattern of the number series is:

$$19 + 1 \times 7 = 19 + 7 = 26$$

$$26 + 2 \times 7 = 26 + 14 = 40$$

$$40 + 4 \times 7 = 40 + 28 = 68$$

$$68 + 8 \times 7 = 68 + 56 = 124$$

$$124 + 16 \times 7 = 124 + 112$$

$$= \mathbf{[236]}$$

(189)

(e) The pattern is:

$$179 + 1^3 = 179 + 1 = 180$$

$$180 - 2^3 = 180 - 8 = 172$$

$$172 + 3^3 = 172 + 27 = 199$$

$$199 + 4^3 = 199 + 64 = 263$$

$$263 - 5^3 = 263 - 125 = \mathbf{[138]}$$

(190)

(c) The pattern is:

$$19 \times 2 - 4 = 38 - 4 = 34$$

$$34 \times 2 - 4 = 68 - 4 = 64$$

$$64 \times 2 - 4 = 128 - 4 = 124$$

$$124 \times 2 - 4 = 248 - 4 = 244$$

$$244 \times 2 - 4 = 488 - 4 = \mathbf{[484]}$$

(191)

(c) The pattern is:

$$19 + 1^2 = 19 + 1 = 20$$

$$20 - 2^2 = 20 - 4 = 16$$

$$16 + 3^2 = 16 + 9 = 25$$

$$25 + 4^2 = 25 + 16 = 41$$

$$41 - 5^2 = 41 - 25 = \mathbf{[16]}$$

(192)

(d) The pattern of the number series is:

$$19 + 2 \times 3 = 19 + 6 = 25$$

$$25 + 4 \times 5 = 25 + 20 = 45$$

$$45 + 6 \times 7 = 45 + 42 = 87$$

$$87 + 8 \times 9 = 87 + 72 = 159$$

$$159 + 10 \times 11 = 159 + 110 = \mathbf{[269]}$$

(193)

(b) The pattern is:

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

$$2 \times 3 + 3^2 = 9 + 9 = 18$$

$$18 \times 5 + 5^2 = 90 + 25 = 115$$

$$115 \times 7 + 7^2 = 805 + 49 = 854$$

$$854 \times 9 + 9^2 = 7686 + 81 = \mathbf{[7767]}$$

(194)

(b) The pattern is:

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

$$2 \times 3 + 3^2 = 9 + 9 = 18$$

$$18 \times 5 + 5^2 = 90 + 25 = 115$$

$$115 \times 7 + 7^2 = 805 + 49 = 854$$

$$854 \times 9 + 9^2 = 7686 + 81 = \mathbf{[7767]}$$

(195)

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

$$2 + 5 = 7$$

$$7 + 5 = 12$$

$$12 + 7 = 19$$

$$19 + 12 = 31$$

$$31 + 19 = 50$$

$$50 + 31 = \mathbf{[81]}$$

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

(196)

(b) The pattern is:

$$2 \times 1 + 5.5 = 2 + 5.5 = 7.5$$

$$7.5 \times 2 + 5.5 = 15 + 5.5 = 20.5$$

$$20.5 \times 3 + 5.5 = 61.5 + 5.5 = 67$$

$$67 \times 4 + 5.5 = 268 + 5.5 = 273.5$$

$$273.5 \times 5 + 5.5 = 1367.5 + 5.5 = \mathbf{[1373]}$$

(197)

(b) The pattern is:

$$2 \times 1 + 5.5 = 2 + 5.5 = 7.5$$

$$7.5 \times 2 + 5.5 = 15 + 5.5 = 20.5$$

$$20.5 \times 3 + 5.5 = 61.5 + 5.5 = 67$$

$$67 \times 4 + 5.5 = 268 + 5.5 = 273.5$$

$$273.5 \times 5 + 5.5 = 1367.5 + 5.5$$

$$= \mathbf{[1373]}$$

(198)

(e) The pattern is :

$$3 \times 1 + 2 = 6 + 2 = 8$$

$$8 \times 3 + 2 = 24 + 2 = 26$$

$$26 \times 3 + 2 = 78 + 2 = \mathbf{[80]}$$

$$80 \times 3 + 2 = 240 + 2 = 242$$

(199)

$$(d) 32431 = 7 \times 4626 + 7^2$$



$$4626 = 6 \times 765 + 6^2$$

$$765 = 5 \times 148 + 5^2$$

$$148 = 4 \times 32 + 4^2$$

$$\text{But } 148 = 4 \times 3 + 4^2$$

$$33 = 3 \times 8 + 3^2$$

$$8 = 2 \times 2 + 2^2$$

Obviously, 32 is the wrong number.

(200)

(c) The pattern is:

$$20 + 2 = 22$$

$$22 + 7 (=1 \times 5 + 2) = 29$$

$$29 + 17 (=2 \times 5 + 7) = 46$$

$$46 + 32 (=3 \times 5 + 17) = 78$$

$$78 + 52 (=4 \times 5 + 32) = [130]$$

(201)

(c) The pattern is:

$$20 + 2 = 22$$

$$22 + 7 (=1 \times 5 + 2) = 29$$

$$29 + 17 (=2 \times 5 + 7) = 46$$

$$46 + 32 (=3 \times 5 + 17) = 78$$

$$78 + 52 (=4 \times 5 + 32) = [130]$$

(202)

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

$$20 + 2^2 = 24$$

$$24 + 3^2 = 33$$

$$33 + 4^2 = 49$$

$$49 + 5^2 = 74$$

$$74 + 6^2 = 110$$

$$\therefore ? = 110 + 7^2$$

$$110 + 49 = [159]$$

(203)

(c) The pattern of the number series is:

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

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

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

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

$$84 + 9 \times 4 = 84 + 36 = [120]$$

(204)

(a) The pattern is :

$$200 \times 0.5 + 2 = 100 + 2 = 102$$

$$102 \times 1.5 + 4 = 153 + 4 = 157$$

$$157 \times 2.5 + 8 = 392.5 + 8 = 400.5$$

$$400.5 \times 3.5 + 16 = 1401.75 + 16$$

$$= [1417.75]$$

$$1417.75 \times 4.5 + 32 = 6379.875 + 32$$

$$= 6411.875$$

(205)

(b) The pattern of the number series is:

$$210 - 1^3 = 209$$

$$209 + 2^2 = 213$$

$$213 - 3^3 = 186$$

$$186 + 4^2 = 202$$

$$202 - 5^3 = 202 - 125 = [77]$$

(206)

(a) The pattern is:

$$576 - 224 = 352$$

$$752 - 576 = 176 = 352/2$$

$$840 - 752 = 88 = 176/2$$

$$884 - 840 = 44 = 88/2$$

$$\therefore ? = 884 + (44/2) = 884 + 22 = [906]$$

(207)

(c) The pattern is:

$$576 - 224 = 352$$

$$752 - 576 = 176$$

$$840 - 752 = 88$$

$$884 - 840 = 44$$

$$\therefore ? = 884 + 22 = [906]$$

(208)

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

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

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

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

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

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

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

$$= 19746 + 7 = [19753]$$

Hence, 19753 will replace the question mark.

(209)

(e) The pattern is:

$$23 + 7 = 30$$

$$30 + 16 (=9 + 7) = 46$$

$$46 + 34 (=18 + 16) = 80$$

$$80 + 61 (=27 + 34) = 141$$

$$141 + 97 (=36 + 61) = [238]$$

(210)

(c) The pattern is:

$$24 \times (1/2) = 12$$

$$12 \times 1 = 12$$

$$12 \times (3/2) = 18$$

$$18 \times 2 = [36]$$

$$36 \times (5/2) = 90$$

(211)

(d) The pattern is:

$$24 + 3 = 27$$

$$27 + 7 (=3 + 4) = 34$$

$$34 + 13 (=7 + 6) = 47$$

$$47 + 21 (=13 + 8) = 68$$

$$68 + 31 (=21 + 10) = [99]$$

(212)

(d) The pattern is:

$$24 + 3 = 27$$

$$27 + 7 (=3 + 4) = 34$$

$$34 + 13 (=7 + 6) = 47$$

$$47 + 21 (=13 + 8) = 68$$

$$68 + 31 (=21 + 10) = [99]$$

(213)



(a) The pattern of the number series is:

$$\begin{aligned} 25 \times 2 - 2 &= 20 - 2 = 48 \\ 48 \times 2 - 2 &= 96 - 2 = 94 \\ 94 \times 2 - 2 &= 188 - 2 = 186 \\ 186 \times 2 - 2 &= 372 - 2 = 370 \\ 370 \times 2 - 2 &= 740 - 2 = \mathbf{[738]} \end{aligned}$$

(214)

(a) The pattern is:

$$\begin{aligned} 25 + 1 \times 16 &= 41 \\ 41 + 3 \times 16 &= 41 + 48 = 89 \\ 89 + 5 \times 16 &= 89 + 80 = 169 \\ 169 + 7 \times 16 &= 169 + 112 = 281 \\ 281 + 9 \times 16 &= 281 + 144 = \mathbf{[425]} \end{aligned}$$

(215)

(d) The pattern is:

$$\begin{aligned} 35 + 221 &= 256 \\ 256 + (221 - 26) &= 451 \\ 451 + 169 (195 - 26) &= 620 \\ 620 + 143 (169 - 26) &= 763 \\ 763 + 117 &= \mathbf{[880]} \end{aligned}$$

(216)

(b) The pattern is:

$$\begin{aligned} 658 + 72 &= 730 \\ 730 + 144 &= 874 \\ 874 + 288 &= 1162 \\ 1162 + 576 &= \mathbf{[1738]} \end{aligned}$$

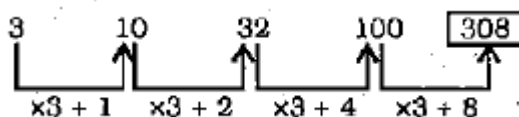
(217)

(a) The pattern is:

$$\begin{aligned} 3 \times 1 + 1 \times 2 &= 3 + 2 = 5 \\ 5 \times 2 + 2 \times 3 &= 10 + 6 = 16 \\ 16 \times 3 + 3 \times 4 &= 48 + 12 = 60 \\ 60 \times 4 + 4 \times 5 &= 240 + 20 = 260 \\ 260 \times 5 + 5 \times 6 &= 1300 + 30 \\ &= \mathbf{[1330]} \end{aligned}$$

(218)

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



Hence 308, will come in place of question mark.

(219)

(e) The pattern of the number series is:

$$\begin{aligned} 3 + 97 &= 100 \\ 100 + 197 &= 297 \\ 297 + 297 &= 594 \\ 594 + 397 &= 991 \\ 991 + 497 &= \mathbf{[1488]} \end{aligned}$$

(220)

(d) The pattern is :

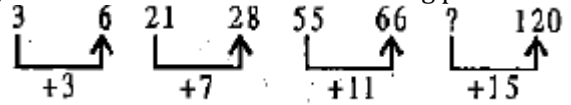
$$\begin{aligned} 3 \times 1 + 2 &= 3 + 2 = 5 \\ 5 \times 2 + 3 &= 10 + 3 = 13 \\ 13 \times 3 + 4 &= 39 + 4 = 43 \end{aligned}$$

$$43 \times 4 + 5 = 172 + 5 = 177$$

$$177 \times 5 + 6 = 885 + 6 = 891$$

(221)

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



$$\therefore ? = 120 - 15 = \mathbf{[105]}$$

Hence, 105 will replace the question mark.

(222)

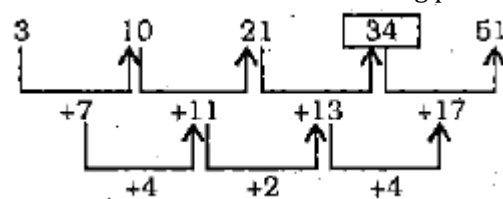
(a) The sequence is based on following pattern:

$$\begin{aligned} 3 \times 2 + 2^2 &= 10 \\ 10 \times 3 + 3^2 &= \mathbf{[39]} \\ 39 \times 4 + 4^2 &= 172 \\ 172 \times 5 + 5^2 &= 885 \neq 886 \\ 885 \times 6 + 6^2 &= 5346 \end{aligned}$$

Hence, 39 will replace the question mark.

(223)

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



(224)

(b) The pattern is :

$$\begin{aligned} 9 \times 0.5 + 0.5 &= 4.5 + 0.5 = 5 \\ 5 \times 1 + 1 &= 5 + 1 = 6 \\ 6 \times 1.5 + 1.5 &= 9 + 1.5 = 10.5 \\ 10.5 \times 2 + 2 &= 21 + 2 = 23 \\ 23 \times 2.5 + 2.5 &= 57.5 + 2.5 \\ &= \mathbf{[60]} \end{aligned}$$

(225)

(d) The pattern of the number of series is:

$$\begin{aligned} 3 \times 7 + 1 &= 21 + 1 = 22 \\ 22 \times 6 + 2 &= 132 + 2 = \mathbf{[134]} \\ 134 \times 5 + 3 &= 670 + 3 = 673 \\ 673 \times 4 + 4 &= 2692 + 4 = 2696 \end{aligned}$$

(226)

(b) The pattern is :

$$\begin{aligned} 3 \times 1.5 &= 4.5 \\ 4.5 \times 4 (=1.5 + 2.5) &= 18 \\ 18 \times 7.5 (=4 + 3.5) &= 135 \\ 135 \times 12 (=7.5 + 4.5) &= \mathbf{[1620]} \\ 1620 \times 17.5 (=12 + 5.5) &= 28350 \end{aligned}$$

(227)

(b) The series is based on following pattern:

$$\begin{aligned} 3 + 4 \times 2^0 &= 7 \\ 7 + 11 &= 18 \\ 18 + 4 \times 2^1 &= 26 \\ 26 + 11 &= \mathbf{[37]} \\ 37 + 4 \times 2^2 &= 53 \end{aligned}$$



$$53 + 11 = 64$$

$$64 + 4 \times 2^3 = 96$$

Therefore, the number 37 will come in place of question mark (?) in the series.

(228)

(b) The pattern of the number series is:

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

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

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

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

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

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

(229)

(b) The pattern is :

$$31 \times 0.5 - 0.5 = 15.5 - 0.5 = 15$$

$$15 \times 1.5 - 1.5 = 22.5 - 1.5 = 21$$

$$21 \times 2.5 - 2.5 = 52.5 - 2.5 = 50$$

$$50 \times 3.5 - 3.5 = 175 - 3.5 = \mathbf{[171.5]}$$

$$171.5 \times 4.5 - 4.5$$

$$= 771.75 - 4.5 = 767.25$$

(230)

(d) The pattern of the number series is:

$$325 - 1 \times 11 = 314$$

$$314 - 2 \times 11 = 292$$

$$292 - 3 \times 11 = 259$$

$$259 - 4 \times 11 = 215$$

$$215 - 5 \times 11 = \mathbf{[160]}$$

(231)

(a) The pattern of the number series is:

$$33 + 6 = 39$$

$$39 + 18 (= 6 + 12) = 57$$

$$57 + 30 (= 18 + 12) = 87$$

$$87 + 42 (= 30 + 12) = 129$$

$$129 + 54 (= 42 + 12) = \mathbf{[183]}$$

(232)

(b) The pattern of the number series is:

$$33 + 10 = 43$$

$$43 + (10 + 12) = 65$$

$$65 + (10 + 24) = 99$$

$$99 + (10 + 36) = 145$$

$$145 + (10 + 48) = \mathbf{[203]}$$

(233)

(c) The pattern is :

$$331 + 5^1 = 331 + 5 = 336$$

$$336 + 5^2 = 336 + 25 = 361$$

$$361 + 5^3 = 361 + 125 = 486$$

$$486 + 5^4 = 486 + 625 = 1111$$

$$1111 + 5^5 = 1111 + 3125 = \mathbf{[4236]}$$

(234)

(a) The pattern of the number series is:

$$336 - 224 = 112$$

$$224 - 168 = 56$$

$$168 - 140 = 28$$

$$140 - 126 = 14$$

$$\therefore ? = 126 - 7 = \mathbf{[119]}$$

(235)

(d) The pattern is:

$$256 - 35 = 221$$

$$451 - 256 = 195 = 221 - 26$$

$$620 - 451 = 169 = 195 - 26$$

$$763 - 620 = 143 = 169 - 26$$

$$\therefore ? = 763 + 143 - 26 = \mathbf{[880]}$$

(236)

(a) The pattern is:

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

$$5 \times 2 + 2 \times 3 = 10 + 6 = 16$$

$$16 \times 3 + 3 \times 4 = 48 + 12 = 60$$

$$60 \times 4 + 4 \times 5 = 240 + 20 = 260$$

$$260 \times 5 + 5 \times 6 = 1300 + 30$$

$$= \mathbf{[1330]}$$

(237)

(b) The pattern is:

$$36 + 13 \times 1 = 49$$

$$49 + 2 \times 13 = 49 + 26 = 75$$

$$75 + 1 \times 13 = 75 + 13$$

$$88 + 2 \times 13 = 88 + 26 = 114$$

$$114 + 1 \times 13 = 114 + 13$$

$$= \mathbf{[127]}$$

(238)

(c) The pattern is :

$$59 + 1 \times 7 = 59 + 7 = 66$$

$$66 + 2 \times 7 = 66 + 14 = 80$$

$$80 + 2 \times 14 = 80 + 28 = 108$$

$$108 + 2 \times 28 = 108 + 56$$

$$= \mathbf{[164]}$$

$$164 + 2 \times 56 = 164 + 112 = 276$$

(239)

(e) The pattern is:

$$36 + 13 = 49$$

$$49 + 2 \times 13 = 75$$

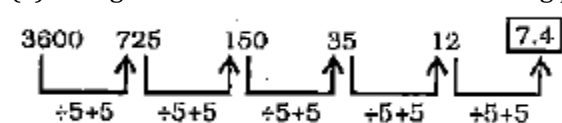
$$75 + 13 = 88$$

$$88 + 2 \times 13 = 114$$

$$114 + 13 = \mathbf{[127]}$$

(240)

(a) The given series is based on the following pattern:



Hence, 7.4 will come in place of the question mark.

(241)

(e) Here the middle number = difference of succeeding number and preceding number.

$$\text{i.e. } 4 - 1 = 3$$

$$7 - 3 = 4$$

$$11 - 4 = 7$$



$$18 - 7 = 11$$

$$27 - 11 = 16$$

Here the sequence gets disturbed

$$\therefore 29 - 11 = 18$$

$$47 - 18 = 29$$

Hence, 27 is the wrong number.

(242)

(c) The pattern of the number series is:

$$39 + 1 \times 13 = 52$$

$$52 + 2 \times 13 = 78$$

$$78 + 3 \times 13 = 117$$

$$117 + 4 \times 13 = 169$$

$$169 + 5 \times 13 = [234]$$

(243)

(e) The series 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.

(244)

(d) The sequence is based on following pattern:

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

$$36 = 6^2 \quad 64 = 8^2$$

$$100 = 10^2$$

$$\therefore ? = 12^2 = [144]$$

Hence, 144 will replace the question mark.

(245)

(a) The pattern of the number series is:

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

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

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

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

$$109 + 16 \times 7 = 109 + 112$$

$$= [221]$$

(246)

(e) The pattern is :

$$4 + 0 = 4$$

$$4 + 6 = 10$$

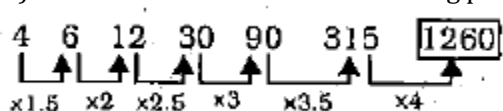
$$10 + 24 (=6 + 18) = 34$$

$$34 + 60 (6 + 54) = 94$$

$$94 + 168 (=6 + 162) = [262]$$

(247)

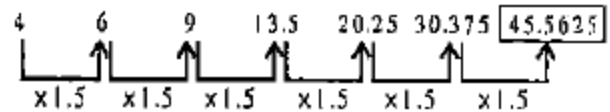
(3) The series is based on the following pattern:



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

(248)

(b)



(249)

(e) The sequence is based on following pattern:

$$4 + 7 = 11$$

$$11 + 7 = 18$$

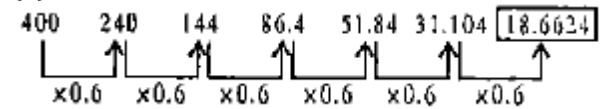
$$18 + 11 = 29 \neq 28$$

$$\therefore ? = 29 + 18 = [47]$$

Hence, 47 will replace the question mark.

(250)

(d)



(251)

(a) The pattern is :

$$402 - 1 \times 2 = 402 - 2 = 400$$

$$400 - 3 \times 4 = 400 - 12 = 388$$

$$388 - 5 \times 6 = 388 - 30 = 358$$

$$358 - 7 \times 8 = 358 - 56 = 302$$

$$302 - 9 \times 10 = 302 - 90 = [212]$$

(252)

(c) The given number series is based on the following pattern:

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

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

$$2624 \times 6^2 = [94464]$$

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

Hence, 94464 will replace the question mark.

(253)

(e) The sequence is based on 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.

(254)

(e) The pattern of the number series is:

$$69 + 43 = 26$$

$$58 + 69 = -11$$

$$84 - 28 = 26$$

$$73 - 84 = -11$$

$$\therefore ? = 73 + 26 = [99]$$

(255)

(d) The sequence is based on following pattern:

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

$$36 = 6^2 \quad 64 = 8^2$$

$$100 = 10^2$$

$$\therefore ? = 12^2 = [144]$$

Hence, 144 will replace the question mark.

(256)



(a) 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:

$$447 + 7^2 = 496 \text{ -----2nd. term}$$

$$496 + 6^2 = 460 \text{ ----- 3rd. term}$$

$$460 + 5^2 = \mathbf{[485 \text{ -----4th. term}]}$$

$$485 - 4^2 = 469$$

Therefore, the fourth term of the new series is 485.

(257)

(d) The pattern is:

$$44 \times 1 - 10 = 44 - 10 = 34$$

$$34 \times 2 - 10 = 68 - 10 = 58$$

$$58 \times 3 - 10 = 174 - 10 = 164$$

$$164 \times 4 - 10 = 646 - 10 = 646$$

$$646 \times 5 - 10 = 3230 - 10 = \mathbf{[3220]}$$

(258)

(c) The pattern of the number series is:

$$112 + 1 \times 7 = 119$$

$$119 + 3 \times 7 = 119 + 21 = 140$$

$$140 + 5 \times 7 = 140 + 35 = 175$$

$$175 + 7 \times 7 = 175 + 49 = 224$$

$$224 + 9 \times 7 = 224 + 63 = \mathbf{[287]}$$

(259)

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

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

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

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

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

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

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

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

Hence, 927 will replace the question mark.

(260)

(b) The pattern of the number series is:

$$45 \times 1 + 1 = 46$$

$$46 \times 1.5 + 1 = 70$$

$$70 \times 2 + 1 = 141$$

$$141 \times 2.5 + 1 = 352.5 + 1 = \mathbf{[3535]}$$

(261)

(c) The sequence is based on following pattern:

$$70000/5 = 14000$$

$$14000/5 = 2800$$

$$2800/5 = \mathbf{[560]}$$

$$560/5 = 112$$

$$112/5 = 22.4$$

Hence, 560 will replace the question mark.

(262)

(d) The pattern of the number series is:

$$(4530/5) - 6 = 9000$$

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

$$(1795/4) - 4 = 355$$

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

$$(68/5) - 2 = 13.6 - 2 = 11.6$$

(263)

(c) The pattern of the number series is:

$$454 + 18 = 472$$

$$472 - 27 = 445$$

$$445 + 18 = 463$$

$$463 - 27 = 436$$

$$436 - 18 = \mathbf{[454]}$$

(264)

(b) The sequence is based on following pattern:

$$102 - 3 = 99$$

$$99 + 5 = 104$$

$$104 - 7 = 97$$

$$97 + 9 = 106$$

$$106 - 11 = \mathbf{[95]}$$

Hence, 95 will replace the question mark.

(265)

(b) The pattern is :

$$461 + 13 = 474$$

$$474 - 9 = 465$$

$$465 + 13 = 478$$

$$478 - 9 = 469$$

$$469 + 13 = \mathbf{[482]}$$

(266)

(b) The pattern of the number series is:

$$552 - 462 = 90$$

$$650 - 552 = 98$$

$$756 - 650 = 106$$

$$870 - 756 = 114$$

$$992 - 870 = 122$$

$$\therefore ? = 992 + 130 = \mathbf{[1122]}$$

(267)

(d) The sequence is based on following pattern:

$$93 + 2 \text{ (prime number)} = 95$$

$$95 + 3 = 98 \neq 99$$

$$98 + 5 = \mathbf{[103]}$$

$$103 + 7 = 110$$

$$110 + 11 = 121$$

$$121 + 13 = 134$$

Hence, 103 will replace the question mark.

(268)

(e) The sequence is based on following pattern:

$$8 \times 1.5 = 12$$

$$12 \times 1.5 = 18$$

$$18 \times 1.5 = 27 \neq 26$$

$$27 \times 1.5 = 40.5$$

$$40.5 \times 1.5 = 60.75$$

$$\therefore ? = 60.75 \times 1.5 = \mathbf{[91.125]}$$

Hence, 91.125 will replace the question mark.



(269)

(a) The pattern of the number series is:

$$443 - 1 \times 12 = 483 - 12 = 471$$

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

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

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

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

(270)

(271)

(b) The pattern of the number series is:

$$5 \times 1 + 1 \times 6 = 11$$

$$11 \times 2 + 2 \times 5 = 32$$

$$32 \times 3 + 3 \times 4 = 108$$

$$108 \times 4 + 4 \times 3 = 444$$

$$444 \times 5 + 5 \times 2 = \mathbf{[2230]}$$

(272)

(e) The pattern of the number series is :

$$15 + 1^2 = \mathbf{[16]}$$

$$16 + 2^3 = 24$$

$$24 + 3^2 = 24 + 9 = 33$$

$$33 + 4^3 = 33 + 64 = 97$$

$$97 + 5^2 = 97 + 25 = 122$$

(273)

(a) The pattern of the number series is:

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

$$12 \times 2 + 1 \times 6 = 36$$

$$36 \times 3 + 3 \times 5 = 123$$

$$123 \times 4 + 4 \times 4 = 492 + 16$$

$$\mathbf{[508]}$$

$$508 \times 5 + 5 \times 3 = 2540 + 15 = 2555$$

(274)

(d) The pattern is:

$$5 + 11 (= 11 \times 1) = 16$$

$$16 + 33 (= 11 \times 3) = 49$$

$$49 + 55 (= 11 \times 5) = 104$$

$$104 + 77 (= 11 \times 7) = \mathbf{[181]}$$

$$181 + 99 (= 11 \times 9) = 280$$

(275)

(c) The pattern of the number series is:

$$5 \times 1 = 1 \quad 5 \times 3 = 15$$

$$15 \times 5 = 75 \quad 75 \times 7 = \mathbf{[525]}$$

$$525 \times 9 = 4725$$

(276)

(a) The pattern is :

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

$$6 \times 2 + 2^2 = 12 + 4 = 16$$

$$16 \times 3 + 3^2 = 48 + 9 = 57$$

$$57 \times 4 + 4^2 = 228 + 16 = \mathbf{[244]}$$

(277)

(b) The pattern of the number series is:

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

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

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

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

$$45 + 5 \times 6 = 75$$

$$75 + 6 \times 7 = \mathbf{[105]}$$

(278)

(a) The pattern is:

$$61 + 1 \times 21 = 61 + 21 = 82$$

$$82 + 2 \times 21 = 82 + 42 = 124$$

$$124 + 3 \times 21 = 124 + 63 = 187$$

$$187 + 4 \times 21 = 187 + 84 = \mathbf{[271]}$$

$$271 + 5 \times 21 = 271 + 105 = 376$$

(279)

(280)

(a) The pattern of the number series is:

$$52 \times (1/2) = 26 \quad 26 \times 1 = 26$$

$$26 \times (3/2) = 39 \quad 39 \times 2 = 78$$

$$78 \times (5/2) = \mathbf{[195]}$$

(281)

(d) The pattern is:

$$55 + 11.15 = 66.15$$

$$66.15 + 2 \times 11.15 = 88.45$$

$$88.45 + 3 \times 11.15 = 121.9$$

$$121.9 + 4 \times 11.15 = 166.5$$

$$166.5 + 5 \times 11.15 = 166.5 + 55.75 = \mathbf{[222.25]}$$

(282)

(a) The pattern of the number series is:

$$6 \times 0.5 + 1 = 4$$

$$4 \times 1.5 + 2 = 8$$

$$8 \times 2.5 + 3 = 23$$

$$23 \times 3.5 + 4 = \mathbf{[84.5]}$$

$$84.5 \times 4.5 + 5 = 385.25$$

(283)

(a) The pattern is :

$$6 \times 2 + 1^2 = 12 + 1 = 13$$

$$13 \times 2.5 + 2^2 = 32.5 + 4 = \mathbf{[36.5]}$$

$$36.5 \times 3 + 3^2 = 109.5 + 9 = 118.5$$

$$118 \times 3.5 + 4^2 = 414.75 + 16 = 430.75$$

$$430 \times 4 + 5^2 = 1723 + 25 = 1748$$

(284)

(b) The pattern of the number series is :

$$6 + 1 \times 13 = 6 + 13 = 19$$

$$19 + 3 \times 13 = 19 + 39 = 58$$

$$58 + 5 \times 13 = 58 + 65 = \mathbf{[123]}$$

$$123 + 7 \times 13 = 123 + 91 = 214$$

$$214 + 9 \times 13 = 214 + 117 = 331$$

(285)

(c) The pattern of the number series is:

$$620 + 1 \times 12 = 632$$

$$632 - 2 \times 12 = 608$$

$$608 + 3 \times 12 = 644$$

$$644 - 4 + 12 = 596$$

$$596 + 5 \times 12 = \mathbf{[656]}$$

(286)

(c) The pattern is :



$$155 - 4 = 151$$

$$151 - 7 (= 4 + 3) = 144$$

$$144 - 12 (= 7 + 5) = 132$$

$$132 - 19 (= 12 + 7) = 113$$

$$113 - 28 (= 19 + 9) = [85]$$

(287)

(e) The pattern of the number series is:

$$655 - 439 = 216 = 6^3$$

$$439 - 314 = 125 = 5^3$$

$$314 - 250 = 64 = 4^3$$

$$250 - 223 = 27 = 3^3$$

$$\therefore ? = 223 - 2^3 = 223 - 8 = [215]$$

(288)

(a) The pattern of the number series is:

$$(656 / 2) + 24 = 328 + 24 = 352$$

$$(352 / 2) + 24 = 176 + 24 = 200$$

$$(200 / 2) + 24 = 100 + 24 = 124$$

$$(124 / 2) + 24 = 62 + 24 = 86$$

$$(86 / 2) + 24 = 43 + 24 = [67]$$

(289)

(b) The pattern of the number series is:

(a) The pattern is :

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

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

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

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

$$\therefore ? = 353 - 4^2 = 353 - 16 = [337]$$

(290)

(e) The pattern of the number series is:

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

$$16 + 5^3 = 16 + 125 = 141$$

$$141 + 7^2 = 141 + 49 = 190$$

$$190 + 9^3 = 190 + 729 = 919$$

$$919 + 11^2 = 919 + 121 = [1040]$$

(291)

(e) The pattern is:

$$7 + 1 \times 17 = 7 + 17 = 24$$

$$24 + 2 \times 17 = 24 + 34 = 58$$

$$58 + 3 \times 17 = 58 + 51 = 109$$

$$109 + 4 \times 17 = 109 + 68 = [177]$$

$$177 + 5 \times 17 = 177 + 85 = 262$$

(292)

(d) The pattern of the number series is:

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

$$11 + (1 + 2) \times 4 = 11 + 3 \times 4 = 23$$

$$23 + (3 + 4) \times 4 = 23 + 7 \times 4 = 51$$

$$51 + (7 + 6) \times 4 = 51 + 13 \times 4 = 103$$

$$103 + (13 + 8) \times 4 = 103 + 21 \times 4$$

$$= [187]$$

(293)

(b) The pattern of the number series is:

$$7 \times 2 + 6 = 20$$

$$20 \times 2 + 6 = 46$$

$$46 \times 2 + 6 = 98$$

$$98 \times 2 + 6 = 202$$

$$202 \times 2 + 6 = 404 + 6 [410]$$

(294)

(b) The pattern is :

$$7 \times 1 - 1 = 6$$

$$6 \times 2 - 2 = 12 - 2 = 10$$

$$10 \times 3 - 3 = 30 - 3 = 27$$

$$27 \times 4 - 4 = 108 - 4 = 104$$

$$104 \times 5 - 5 = 520 - 5 = [515]$$

(295)

(c) The pattern is :

$$36 + 16 = 52$$

$$52 + 18 = 70$$

$$70 + 20 = 90$$

$$90 + 22 = 112$$

$$112 + 24 = 136$$

$$136 + 26 = [162]$$

(296)

(e) The pattern is:

$$7 + 1^3 + 1 = 7 + 2 = 9$$

$$9 + 2^3 + 1 = 9 + 9 = 18$$

$$18 + 3^3 + 1 = 18 + 28 = 46$$

$$46 + 4^3 + 1 = 46 + 65 = 111$$

$$111 + 5^3 + 1 = 111 + 126 = [237]$$

(297)

(b) The pattern is :

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

$$9 \times 2 + 2 \times 3 = 18 + 6 = 24$$

$$24 \times 3 + 3 \times 4 = 72 + 12 = 84$$

$$84 \times 4 + 4 \times 5 = 336 + 20 = [356]$$

$$356 \times 5 + 5 \times 6 = 1780 + 30 = 1810$$

(298)

(a) The pattern is :

$$7 \times 0.5 + 1.5 = 3.5 + 1.5 = 5$$

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

$$7 \times 1.5 + 2.5 = 10.5 + 2.5 = 13$$

$$13 \times 2 + 3 = 26 + 3 = 29$$

$$29 \times 2.5 + 3.5 = 72.5 + 3.5 = [76]$$

$$76 \times 3 + 4 = 228 + 4 = 232$$

(299)

(e) The pattern is:

$$7.4 + 1.8 = 9.2$$

$$9.2 + 2.2 = 11.4$$

$$11.4 + 2.6 = 14$$

$$14 + 3 = 17$$

$$17 + 3.4 = [20.4]$$

(300)

(301)

$$(e) 705 + 1 \times 23 = 728$$

$$728 + 2 \times 23 = 774$$

$$774 + 3 \times 23 = 843$$

$$843 + 4 \times 23 = 935$$



$$935 + 5 \times 23 = 1050$$

$$\therefore ? = 1050 + 6 \times 23$$

$$= 1050 + 138 = 1188$$

(302)

(303)

(d) The pattern of the number series is:

$$8 \times 0.5 + 7 = 4 + 7 = 11$$

$$11 \times 1 + 6 = 17$$

$$17 \times 1.5 + 5 = 25.5 + 5 = \mathbf{[30.5]}$$

$$30.5 \times 2 + 4 = 61 + 4 = 65$$

(304)

(e) The sequence is based on following pattern:

$$8 \times 1.5 = 12$$

$$12 \times 1.5 = 18$$

$$18 \times 1.5 = 27 \neq 26$$

$$27 \times 1.5 = 40.5$$

$$40.5 \times 1.5 = 60.75$$

$$\therefore ? = 60.75 \times 1.5 = \mathbf{[91.125]}$$

Hence, 91.125 will replace the question mark.

(305)

(b) The pattern is:

$$8 + 9 = 17$$

$$17 + 13 (=9 + 4) = 30$$

$$30 + 17 (=13 + 4) = 47$$

$$47 + 21 (=17 + 4) = 68$$

$$68 + 25 (=21 + 4) = \mathbf{[93]}$$

(306)

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

$$8 \times 4 - 1 = 32 - 1 = 31$$

$$31 \times 4 - 2 = 124 - 2 = 122$$

$$122 \times 4 - 3 = 488 - 3 = 485$$

$$485 \times 4 - 4 = 1940 - 4 = 1936$$

$$1936 \times 4 - 5 = 7744 - 5 = 7739$$

$$\therefore ? = 7739 \times 4 - 6$$

$$= 30956 - 6 = \mathbf{[30950]}$$

(307)

(c) The pattern is:

$$8 \times 0.5 + 0.5 = 4 + 0.5 = 4.5$$

$$4.5 \times 1 + 1 = 4.5 + 1 = 5.5$$

$$5.5 \times 1.5 + 1.5 = 8.25 + 1.5$$

$$= 9.75$$

$$9.75 \times 2 + 2 = 19.5 + 2 = 21.5$$

$$21.5 \times 2.5 + 2.5 = 53.75 + 2.5$$

$$= \mathbf{[56.25]}$$

(308)

(c) The pattern is:

$$8 \times 0.5 + 0.5 = 4 + 0.5 = 4.5$$

$$4.5 \times 1 + 1 = 4.5 + 1 = 5.5$$

$$5.5 \times 1.5 + 1.5 = 8.25 + 1.5 = 9.75$$

$$9.75 \times 2 + 2 = 19.5 + 2 = 21.5$$

$$21.5 \times 2.5 + 2.5 = 53.75 + 2.5$$

$$= \mathbf{[56.25]}$$

(309)

(d) The pattern of the number series is:

$$2^3 = 8; \quad 4^3 = 64$$

$$6^3 = 216; \quad 8^3 = 512$$

$$10^3 = \mathbf{[1000]}; \quad 12^3 = 1728$$

(310)

(b) The pattern of the number series is:

$$8 + 2 = 10$$

$$10 + 8 (=2 \times 3 + 2) = 18$$

$$18 + 26 (=3 \times 8 + 2) = 44$$

$$44 + 80 (=3 \times 26 + 2) = 124$$

$$124 + 242 (=3 \times 80 + 2) = \mathbf{[366]}$$

(311)

(e) The pattern of the number series is:

$$83 + 41 \times 1 = 124$$

$$124 + 41 \times 2 = 124 + 82 = 206$$

$$206 + 41 \times 4 = 206 + 164 = 370$$

$$370 + 41 \times 8 = 370 + 328 = 698$$

$$698 + 41 \times 16 = 698 + 656$$

$$= \mathbf{[1354]}$$

(312)

(c) The pattern is:

$$9 \times 0.5 - 0.5 = 4.5 - 0.5 = 4$$

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

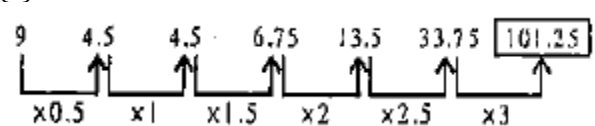
$$5 \times 1.5 - 1.5 = 7.5 - 1.5 = 6$$

$$6 \times 2 + 2 = 12 + 2 = 14$$

$$14 \times 2.5 - 2.5 = 35 - 2.5 = \mathbf{[32.5]}$$

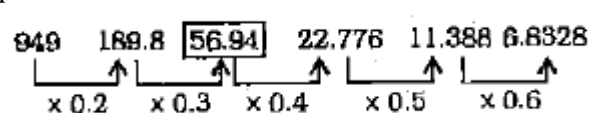
(313)

(a)



(314)

(d) The given number series is based on the following pattern:



Hence, 56.94 will replace the question mark.

(315)

(b) The pattern of the number series is:

$$958 - 833 = 125$$

$$833 - 733 = 100$$

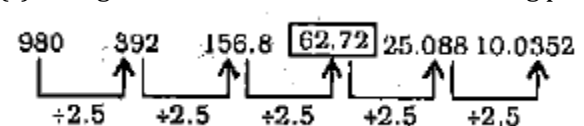
$$733 - 658 = 75$$

$$658 - 608 = 50$$

$$\therefore ? = 608 - 25 = \mathbf{[583]}$$

(316)

(c) The given series is based on the following pattern:





Hence, 62.72 will come in place of the question mark.

(317)

(e) The pattern is :

$$(980/2) + 26 = 516$$

$$(516/2) + 26 = 284$$

$$(284/2) + 26 = 168$$

$$(168/2) + 26 = 110$$

$$(110/2) + 26 = \mathbf{[81]}$$

(318)

(d) The sequence is based on following pattern:

$$93 + 2 \text{ (prime number)} = 95$$

$$95 + 3 = 98 \neq 99$$

$$98 + 5 = \mathbf{[103]}$$

$$103 + 7 = 110$$

$$110 + 11 = 121$$

$$121 + 13 = 134$$

Hence, 103 will replace the question mark.

(319)

(c) The pattern is :

$$8 \times 1 - 2.5 = 8 - 2.5 = 5.5$$

$$5.5 \times 2 - 2.5 = 11 - 2.5 = 8.5$$

$$8.5 \times 3 - 2.5 = 25.5 - 2.5 = 23$$

$$23 \times 4 - 2.5 = 92 - 2.5 = 89.5$$

$$89.5 \times 5 - 2.5 = 447.5 - 2.5 = \mathbf{[445]}$$

(320)

(e) The pattern is :

$$6 \times 1 - 1 = 6 - 1 = 5$$

$$5 \times 2 - 2 = 10 - 2 = 8$$

$$8 \times 3 - 3 = 24 - 3 = 21$$

$$21 \times 4 - 4 = 84 - 4 = 80$$

$$80 \times 5 - 5 = 400 - 5 = \mathbf{[395]}$$