

CHAPTER

9

Number Puzzle

1. Find the missing number from the given responses.

(SSC CGL 1st Sit. 2010)

173	(24)	526
431	(18)	325
253	(?)	471

- (a) 22 (b) 42 (c) 30 (d) 06

2. What is the number missing from the third target?

5	9	15
16	29	?
49	89	147

(SSC CGL 1st Sit. 2010)

- (a) 45 (b) 48 (c) 51 (d) 54

3. The following equations follow a common property. Find out the correct value to complete D : (SSC CGL 2nd Sit. 2010)

A = 51 (714) 14 :

B = 61 (915) 15 :

C = 71 (1136) 16 :

D = 81 (?) 17

- (a) (1377) (b) (1378) (c) (1356) (d) (1346)

4. Find the missing number from the given responses:

5	6	12
4	3	4
2	3	?
18	27	96

(SSC CGL 2nd Sit. 2010)

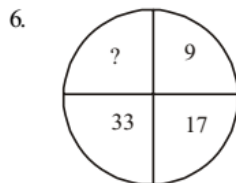
- (a) 4 (b) 5 (c) 3 (d) 6

DIRECTIONS (Qs. 5 – 6) : In each of the following questions. Select the missing number from the given responses.

5. $\begin{matrix} 2 & 7 & 9 \\ 7 & 3 & 4 \\ 9 & 8 & ? \\ 126 & 168 & 216 \end{matrix}$

(SSC CGL 1st Sit. 2011)

- (a) 8 (b) 3 (c) 6 (d) 36



- (a) 60 (b) 68 (c) 55 (d) 65

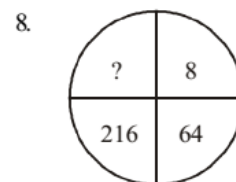
DIRECTIONS (Qs. 7 - 8): Select the missing number from the given responses :

7.

7	3	2
4	9	6
2	1	5
69	91	?

(SSC CGL 2nd Sit. 2011)

- (a) 58 (b) 51
(c) 65 (d) 64



- (a) 343 (b) 512 (c) 729 (d) 1000

DIRECTIONS (Qs. 9- 11): Select the missing number from the given responses.

9. (SSC CGL 1st Sit. 2012)

- (a) 20 (b) 25 (c) 10 (d) 15

10.

10	11	15
12	12	8
4	12	10
10	5	13
18	20	?

- (a) 21 (b) 20
(c) 23 (d) 22

11.

2	3
4	5

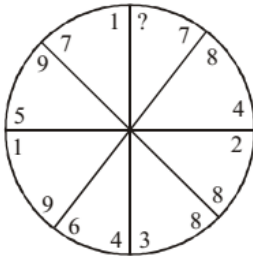
 = ?

- (a) 14400 (b) 15600
(c) 23040 (d) 17400

DIRECTIONS (Qs. 12 - 13): Select the missing number from the given responses.

(SSC CGL 2nd Sit. 2012)

12.



- (a) 6 (b) 2 (c) 3 (d) 4

13.

7	6	9
2	8	4
4	3	?
36	42	26

- (a) 5 (b) 2 (c) 3 (d) 4

DIRECTIONS (Qs. 14 - 15): In the following questions, select the missing number from the given responses.

(SSC CGL 1st Sit. 2012)

14.

7	8	6
4	9	5
3	2	?
25	70	29

- (a) 9 (b) 8 (c) 1 (d) 5

15.

3	4	5
6	7	8
9	1	2
57	11	?

- (a) 42 (b) 21 (c) 11 (d) 18

DIRECTIONS (Qs. 16 - 17): Find the missing number.

16.

21	24	36
11	14	12
3	?	4
77	112	108

(SSC CGL 2nd Sit. 2012)

- (a) 2 (b) 4 (c) 3 (d) 5

17.

12	16	18
16	16	20
5	7	?
197	263	356

- (a) 9 (b) -4 (c) 4 (d) -8

DIRECTIONS (Qs. 18-20): Select the missing number from the given responses.

18.

8	7	6
8	7	6
88	77	?
5632	3773	3132

(SSC Sub. Ins. 2012)

- (a) 66 (b) 87 (c) 78 (d) 76

19.

28	35	32
7	5	8
4	3	?
8	10	9

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

20.

12 (288)₂; 5(50)₂, 19(?)₂

- (a) 722 (b) 324 (c) 776 (d) 684

DIRECTIONS (Qs. 21 - 23): Select the missing number/letter from the given responses.

(SSC CHSL 2012)

21.

?	27
9	5

- (a) 14 (b) 15 (c) 12 (d) 13

22.

R	Q	L
S	P	M
T	?	N

- (a) O (b) R (c) W (d) V

23.

7	6	15
10	?	12
35	12	90

- (a) 9 (b) 4 (c) 25 (d) 11

DIRECTIONS (Qs. 24 - 26): Select the missing number from the given responses.

(SSC CGL 1st Sit. 2013)

24.

3	4	6
5	7	3
1	2	7
35	69	?

- (a) 82 (b) 94 (c) 84 (d) 42

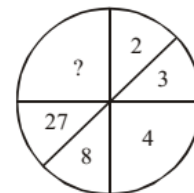
25.

16	49	64
25	36	81
9	13	?

- (a) 21 (b) 22 (c) 17 (d) 14

26. Select the missing number from the given responses.

(SSC Multitasking 2013)



- (a) 56 (b) 49 (c) 45 (d) 64

DIRECTIONS (Qs. 27- 30) : In the following questions, select the missing number from the given responses.

27. 81 64 16 (SSC CGL 2nd Sit. 2013)
 4 9 49
 36 16 25
 108 96 ?
 (a) 230 (b) 140 (c) 120 (d) 410
28. 25 5 5
 30 5 6
 35 ? 5
 (a) 5 (b) 4 (c) 6 (d) 7
29. 24 51 67
 2 4 6
 5 7 5
 53 211 ?
 (a) 135 (b) 235 (c) 347 (d) 407
30. Find the missing number.

 (a) 37 (b) 45 (c) 47 (d) 57

DIRECTIONS (Qs. 31 - 33) : Select the missing number from the given responses.

- (SSC CGL 2nd Sit. 2013)
31. $\begin{array}{ccc} 3 & 5 & 8 & 7 \\ 4 & 6 & 4 & 6 \\ 5 & 2 & 2 & 3 \\ \hline 58 & 58 & 62 & ? \end{array}$
 (a) 122 (b) 128 (c) 124 (d) 126
32. 4 3 2
 6 9 10
 9 27 ?
 (a) 20 (b) 50 (c) 54 (d) 30
33. 84, 81 88
 14 12 18 9 ? 11
 (a) 12 (b) 14 (c) 16 (d) 10

DIRECTIONS (Qs. 34 - 35) : In the following questions, select the missing number from the given responses:

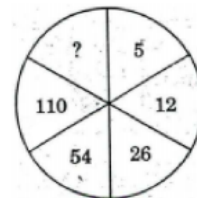
- (SSC CGL 1st Sit. 2013)
34. 54 30 112 42 ? 28
 24 70 38
 (a) 176 (b) 166 (c) 116 (d) 66
35. 216 209 202
 522 515 508
 633 626 ?
 (a) 620 (b) 608 (c) 602 (d) 619

DIRECTIONS (Qs. 36 - 37): In the following questions, select the missing number from the given responses.

- (SSC Sub. Ins. 2013)
36.
 (a) 330 (b) 336 (c) 428 (d) 420
37. $\begin{array}{ccc} 12 & 15 & 16 \\ 03 & 04 & 05 \\ 04 & 06 & 04 \\ 40 & 66 & ? \end{array}$
 (a) 104 (b) 320 (c) 25 (d) 84

DIRECTIONS (Qs. 38 - 39) : In the following questions select the missing number from the given responses.

- (SSC CHSL 2013)
38. 5 25 5
 7 49 7
 6 ? 6
 (a) 38 (b) 40 (c) 36 (d) 35
39. $\begin{array}{ccc} 96 & 100 & 132 \\ 6 & 4 & 6 \\ 5 & 7 & 3 \\ 21 & 32 & ? \end{array}$
 (a) 32 (b) 20 (c) 25 (d) 30
40. Select the missing number from the given responses:



(SSC CHSL 2013)

- (a) 132 (b) 122 (c) 222 (d) 212

DIRECTIONS (Qs. 41- 42) : Select the missing number from the given responses.

- (SSC Sten. 2013)
41. $\begin{array}{ccc} 3 & 5 & 8 \\ 5 & 7 & 6 \\ 4 & 2 & ? \\ 60 & 70 & 144 \end{array}$
 (a) 18 (b) 48 (c) 3 (d) 4
42. $\begin{array}{ccc} 6 & 18 & 9 \\ 12 & 36 & 18 \\ 24 & ? & 36 \\ (a) & 18 & \end{array}$ (b) 72 (c) 54 (d) 60

DIRECTIONS (Qs. 43 - 47): Select the missing number from the given responses.

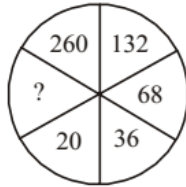
- (SSC CGL 2014)
43. $\begin{array}{ccc} 7 & 6 & 6 \\ 8 & 6 & ? \\ 3 & 4 & 5 \\ 168 & 144 & 120 \end{array}$
 (a) 8 (b) 10 (c) 5 (d) 4

44. $\begin{array}{ccc} 8 & 5 & 6 \\ 3 & 7 & 5 \\ 1 & 4 & 2 \\ 74 & 90 & ? \end{array}$
 (a) 65 (b) 85 (c) 52 (d) 76

45. $\begin{array}{ccc} 22 & 46 & 24 \\ 27 & 58 & 31 \\ 32 & 68 & ? \end{array}$
 (a) 46 (b) 36 (c) 32 (d) 38

46. Select the missing number from the given responses.
 121 156 105
 145 187 126
 115 190 ?
 (a) 231 (b) 225 (c) 255 (d) 305

47. Find the missing number from the given responses.
 (SSC Sub. Ins. 2014)



- (a) 12 (b) 10 (c) 9 (d) 8

DIRECTIONS (Qs. 48 - 49) : In questions below, select the missing number from the given responses

(SSC Sub. Ins. 2014)

48.

7	9	8
2	4	3
5	7	6
16	32	?

- (a) 17 (b) 23
 (c) 47 (d) 73

49. $\begin{array}{ccc} \text{3} & \text{9} & \\ \text{81} & \text{7} & \text{5} \\ \text{64} & \text{4} & \text{6} \end{array}$ $\begin{array}{ccc} \text{2} & \text{8} & \\ \text{49} & \text{?} & \text{5} \\ \text{64} & \text{4} & \text{6} \end{array}$
 (a) 1 (b) 8
 (c) 6 (d) 16

DIRECTIONS (Qs. 50 - 51) : Select the missing number from the given responses.

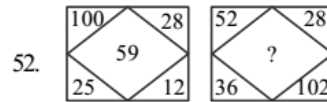
(SSC CHSL 2014)

50. $\begin{array}{ccc} 81 & 729 & \\ & 9 & \\ 64 & 512 & \\ & 8 & \\ 49 & ? & \\ & 7 & \end{array}$
 (a) 444 (b) 515
 (c) 343 (d) 373

51. $\begin{array}{cccc} 18 & 11 & 6 & 12 \\ 9 & 38 & 6 & 19 \\ 17 & 11 & 15 & 8 \end{array}$
 (a) 9 (b) 40
 (c) 7 (d) 36

DIRECTIONS (Qs. 52 - 54) : Select the missing number from the given responses.

(SSC Sten. 2014)



- (a) 50 (b) 90
 (c) 218 (d) 64

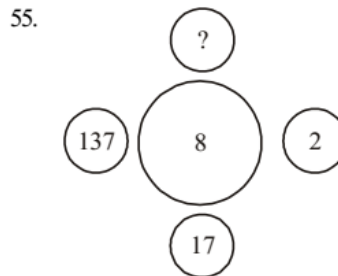
53. $\begin{array}{c} 3 \\ | \\ 4 - 1 - 5 \\ | \\ 5 \end{array}$ $\begin{array}{c} 5 \\ | \\ 7 - 5 - 7 \\ | \\ 4 \end{array}$ $\begin{array}{c} 2 \\ | \\ 3 - ? - 5 \\ | \\ 1 \end{array}$

- (a) 11 (b) 3 (c) 1 (d) 5

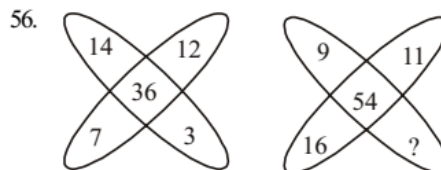
54. $\begin{array}{ccc} 5 & 7 & 4 \\ 16 & 13 & 38 \\ 3 & 5 & ? \\ 7 & 4 & 6 \end{array}$
 (a) 6 (b) 7 (c) 9 (d) 8

DIRECTIONS (Qs. 55 - 59) : In the following questions, select the missing number from the given responses.

(SSC CGL 1st Sit. 2015)



- (a) 97 (b) 907 (c) 1097 (d) 9107



- (a) 12 (b) 17 (c) 18 (d) 16
 57. $\begin{array}{ccc} 9 & 11 & 13 \\ 13 & 15 & 17 \\ 10 & 12 & 14 \\ 14 & 16 & 18 \\ 11 & 13 & ? \end{array}$
 (a) 22 (b) 14 (c) 15 (d) 21

58.

3	2	2	-1	6	5
4	24	-2	4	0	?

- (a) 30 (b) 11
(c) 0 (d) 1

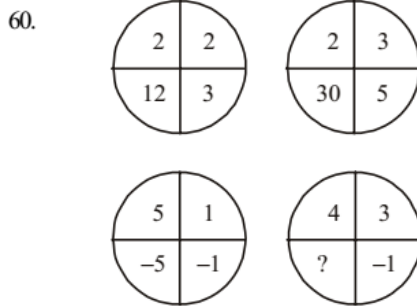
59.

7	5	3
8	4	9
2	8	?

- 112 160 162
(a) 4 (b) 6
(c) 8 (d) 12

DIRECTIONS (Qs. 60 - 64): In questions, select the missing number from the given responses.

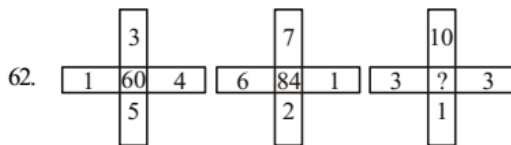
(SSC CGL 1st Sit. 2015)



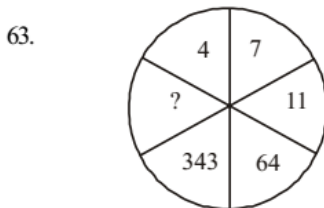
- (a) 12 (b) 7
(c) -12 (d) 9

61. I. 40 32 72 12
II. 30 24 54 9
III. 54 ? 90 15

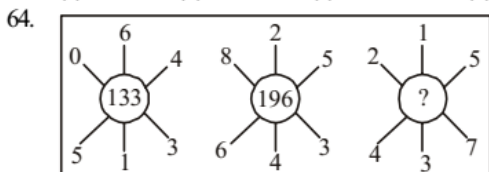
- (a) 49 (b) 36
(c) 46 (d) 48



- (a) 16 (b) 12
(c) 90 (d) 48



- (a) 1332 (b) 1321 (c) 1231 (d) 1331



- (a) 535 (b) 451 (c) 702 (d) 154

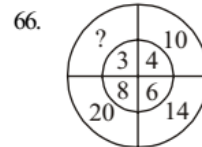
DIRECTIONS (Qs. 65 - 67): In questions below, Select the missing number from the given responses.

(SSC Sub. Ins. 2015)

65.

	8			12			14	
6	54	7	8	51	4	9	?	5
	4			7			9	

- (a) 53 (b) 71 (c) 76 (d) 68



- (a) 24 (b) 12 (c) 18 (d) 19

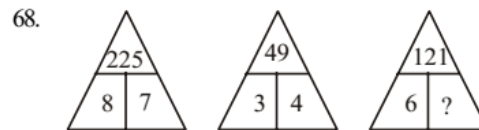
67.

9	6	?
8	5	6
7	4	3
65	26	39

- (a) 8 (b) 7 (c) 10 (d) 9

DIRECTIONS (Qs. 68 - 71): Select the missing number from the given responses.

(SSC CHSL 2015)



- (a) 20 (b) 5
(c) 4 (d) 21

69.

4	8	16	32
5	15	?	135
6	24	96	384

- (a) 45 (b) 80
(c) 30 (d) 32

70.

4	3
5	9
77	?
8	7

- (a) 79 (b) 73
(c) 75 (d) 77

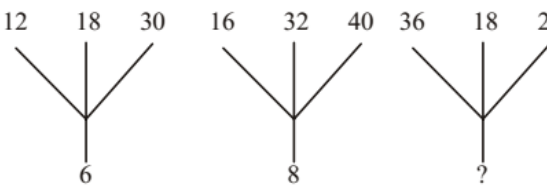
71.

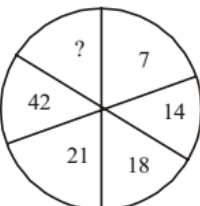
874		
1	3	5
2	4	6
3	1	9
1	7	?

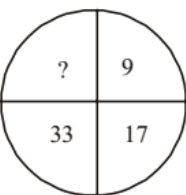
- (a) 6 (b) 8
(c) 2 (d) 4

DIRECTIONS (Qs. 72 - 78) : Select the missing number from the given responses.

(SSC CHSL 2015)

72. 
 (a) 12 (b) 18 (c) 6 (d) 9

73. 
 (a) 58 (b) 45 (c) 54 (d) 42

74. 
 (a) 60 (b) 65 (c) 68 (d) 55

75. Select the missing number from the given responses:

6	5	26
4	7	32
?	9	44

(SSC CGL 1st Sit. 2016)

- (a) 8 (b) 31 (c) 32 (d) 36

76. Select the missing number from the given alternatives:

7	9	8
8	9	?
4	9	6
60	90	70

(SSC CGL 1st Sit. 2016)

- (a) 9 (b) 8 (c) 7 (d) 6

77. Select the missing numbers from the given responses

43	25	?
21	40	35
35	34	28

(SSC CGL 1st Sit. 2016)

- (a) 36 (b) 46 (c) 40 (d) 26

78. Find the missing number from the given alternatives

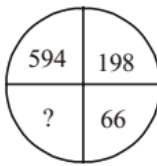
(SSC CGL 1st Sit. 2016)

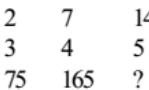
7	10	5
16	40	8
15	?	9

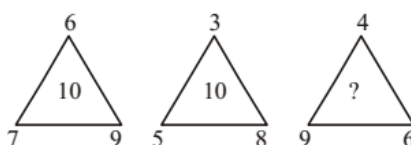
- (a) 75 (b) 45 (c) 20 (d) 30

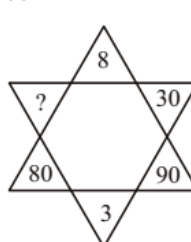
DIRECTIONS (Qs. 79 - 82) : In the questions, select the missing number from the given responses.

(SSC Sten. 2016)

79. 
 (a) 11 (b) 12
 (c) 22 (d) 33

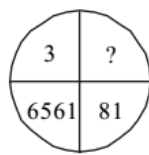
80. 
 (a) 165 (b) 425
 (c) 185 (d) 285

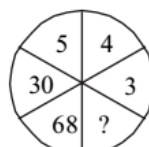
81. 
 (a) 15 (b) 20
 (c) 11 (d) 10

82. 
 (a) 20 (b) 15
 (c) 40 (d) 10

DIRECTIONS (Qs. 83 - 86) : In the following questions, select the missing number from the given responses.

(SSC Sub. Ins. 2016)

83. 
 (a) 27 (b) 18
 (c) 24 (d) 9

84. 
 (a) 128 (b) 131
 (c) 130 (d) 129

85.

144	25	13
196	29	15
324	?	19

- (a) 41 (b) 39
(c) 37 (d) 29

86.

16	25	48	8
2	5	3	6
8	25	36	16
4	5	4	?

- (a) 3 (b) 8
(c) 12 (d) 6

87. In the following question, select the number which can be placed at the sign of question non marking the given alternatives. (SSC CGL 2017)

	3	
2	31	1
	5	

	4	
2	145	6
	3	

	2	
1	?	7
	5	

- (a) 43 (b) 49
(c) 59 (d) 71

88. In the following question, select the number which can be placed the sign of question mark (?) from the given alternatives.

(SSC CGL 2017)

7	6	3
2	5	1
8	9	4
115	273	?

- (a) 14 (b) 15
(c) 16 (d) 18

89. In the following question, select the number which can be at the sign of question mark (?) from the given alternatives. (SSC CGL 2017)

1512	504
?	168

- (a) 53 (b) 56
(c) 59 (d) 66

90. In the following question, select the number which can be placed at the sign of question mark (?) from the given alternatives. (SSC CGL 2017)

3	10	6	186
9	5	3	138
5	7	1	36
3	2	5	?

- (a) 35 (b) 42
(c) 45 (d) 95

91. In the following question, select the missing number from the given series. (SSC CHSL 2017)

49	169	484
81	144	625
16	25	?

- (a) 37 (b) 47
(c) 48 (d) 25

92. Find the missing number from the given responses,

(SSC MTS 2017)

7	3	10
3	4	7
2	7	?
42	84	140

- (a) 2 (b) 17
(c) 9 (d) 34

93. In the following question, select the number which can be placed at the sign of question mark (?) from the given alternatives. (SSC Sub. Ins. 2017)

7	3	2
6	11	5
5	1	8
72	?	50

- (a) 38 (b) 40
(c) 42 (d) 44

94. In the following question, select the number which can be placed at the sign of question mark (?) from the given alternatives. (SSC Sub. Ins. 2017)

1	7	2
8	6	4
9	2	5
4	7	?

- (a) 9 (b) 10
(c) 11 (d) 12

95. In the following question, select the number which can be placed at the sign of question mark (?) from the given alternatives. (SSC Sten. 2017)

4	8	12
38	56	?
9	11	13

(a) 72 (b) 78
(c) 108 (d) 90

96. In the following question, select the letter which can be placed at the sign of question mark (?) from the given alternatives. (SSC Sten. 2017)



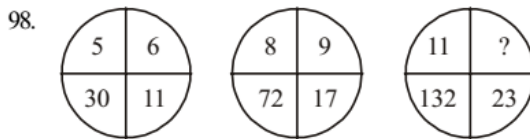
- (a) X (b) Y
(c) Z (d) A

DIRECTIONS (97–98) : In the following question, select the number which can be placed at the sign of question mark (?) from the given alternatives.

97. (SSC Sten. 2017)

5	7	6	36
10	?	17	64
9	11	8	56

- (a) 5 (b) 6
(c) 7 (d) 8



- (a) 10 (b) 12
(c) 14 (d) 16

99. Find the missing number from the below options. (SSC CGL 2018)

19	78	20
25	144	47
16	?	13

- (a) 96 (b) 76 (c) 58 (d) 29

100. Find the missing number from the below options. (SSC CGL 2018)

12	7	95
14	8	132
16	9	?

- (a) 175 (b) 164 (c) 185 (d) 154

101. Select the missing number from the given options. (SSC CGL 2018)

36	52	86
28	40	12
32	46	?

- (a) 43 (b) 53
(c) 49 (d) 51

102. Select the missing number from the given options. (SSC CGL 2018)

2	3	5
125	343	216
3	4	?

- (a) 2 (b) 1
(c) 4 (d) 3

103. Find the missing number from the below options. (SSC Stenographer 2018)

4	9	9
7	4	?
11	13	19

- (a) 11 (b) 9 (c) 8 (d) 10

104. Find the missing number from the below options. (SSC Stenographer 2018)

16	25	81
36	49	9
10	12	?

- (a) 15 (b) 12 (c) 21 (d) 36

105. Find the missing number from the below options. (SSC Stenographer 2018)

3	10
5	8
7	?
5	8

- (a) 7 (b) 5 (c) 6 (d) 8

106. Study the given carefully and select the number that can replace the question mark (?) in it. (SSC CGL 2019-20)

6	21	14
40	500	?
8	25	7

- (a) 78 (b) 98
(c) 91 (d) 84

107. Study the given pattern carefully and select the number that can replace the question mark (?) in it. (SSC MTS 2019-20)

7	6	3	48
4	9	8	63
2	5	7	?

- (a) 28 (b) 42
(c) 52 (d) 56

108. Study the given pattern carefully and select the number that can replace the question mark (?) in it.

25	64	81
23	41	38
18	33	?

- (SSC CGL 2020-21)
(a) 17 (b) 27 (c) 19 (d) 29

109. Study the given pattern carefully and select the number that can replace the question mark (?) in it? (SSC Stenographer 2020-21)

53	63	?
48	58	40
49	25	49

- (a) 58 (b) 51 (c) 47 (d) 49

110. Study the given pattern carefully and select the number that can replace the question mark (?) in it. (SSC Stenographer 2020-21)

4	8	128
3	9	108
5	10	?

- (a) 236 (b) 205 (c) 225 (d) 220

111. Study the given pattern carefully and select the number that can replace the question mark (?) in it.

(SSC Stenographer 2020-21)

15 12 81
17 14 93
15 11 ?

- (a) 104 (b) 113 (c) 97 (d) 181

112. Study the given pattern carefully and select the number that can replace the question mark (?) in it.

(SSC Sub-Inspector 2020-21)

14	16	60
11	17	?
15	18	99

- (a) 78 (b) 168 (c) 144 (d) 89

113. Study the given pattern carefully and select the number that can replace the question mark (?) in it.

(SSC Sub-Inspector 2020-21)

?	8	11
7	6	5
48	63	72

- (a) 7 (b) 5 (c) 6 (d) 4

114. Study the given pattern carefully and select the number that can replace the question mark (?) in it.

(SSC Sub-Inspector 2020-21)

28	58	118
21	44	90
47	96	?

- (a) 194 (b) 150 (c) 176 (d) 188

115. Study the given pattern carefully and select the number that can replace the question mark (?) in it.

(SSC Sub-Inspector 2020-21)

54	40	56
68	57	44
47	39	?

- (a) 22
(b) 30
(c) 32
(d) 39

Hints & Solutions

1. (a) $1 + 7 + 3 + 5 + 2 + 6 = 24$
 $4 + 3 + 1 + 3 + 2 + 5 = 18$
Therefore,

$$2 + 5 + 3 + 4 + 7 + 1 = \boxed{22}$$

2. (b) As, $5 \times 3 + 1 = 16$
 $16 \times 3 + 1 = 49$
 $9 \times 3 + 2 = 29$
 $29 \times 3 + 2 = 89$
Therefore,

$$15 \times 3 + 3 = \boxed{48}$$

$$48 \times 3 + 3 = 147$$

3. (a) As, $A = 51 \times 14 = 714$
 $B = 61 \times 15 = 915$
 $C = 71 \times 16 = 1136$

$$\therefore D = 81 \times 17 = \boxed{1377}$$

4. (d) $5 + 4 = 9$ and $9 \times 2 = 18$
 $6 + 3 = 9$ and $9 \times 3 = 27$
 $12 + 4 = 16$ and ?

$$= \frac{96}{16} = \boxed{6}$$

5. (c) Columnwise

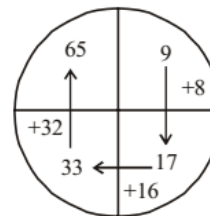
$$\text{I. } 2 \times 7 \times 9 = 126$$

$$\text{II. } 7 \times 3 \times 8 = 168$$

$$\text{III. } 9 \times 4 \times ? = 216$$

$$\therefore ? = \frac{216}{9 \times 4} = \boxed{6}$$

6. (d)



7. (c) Column wise

First Column,

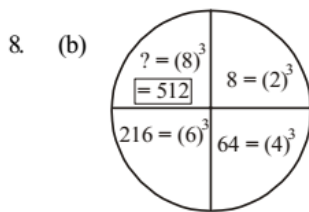
$$(7)^2 + (4)^2 + (2)^2 = 49 + 16 + 4 = 69$$

Second Column,

$$(3)^2 + (9)^2 + (1)^2 = 9 + 81 + 1 = 91$$

Similarly, In third column,

$$(2)^2 + (6)^2 + (5)^2 = 4 + 36 + 25 = \boxed{65}$$



9. (d) The product of two numbers in a sector is equal to the central number in the previous sector.

$$3 \times 5 = 15$$

$$8 \times 3 = 24$$

$$7 \times 2 = 14$$

$$5 \times 3 = \boxed{15}$$

$$8 \times 4 = 32$$

$$9 \times 1 = 9$$

$$9 \times 2 = 18$$

$$7 \times 4 = 28$$

10. (c) First Column

$$10 + 12 + 4 + 10 = 36$$

$$\frac{36}{2} = 18$$

Second Column

$$11 + 12 + 12 + 5 = 40 = \frac{40}{2} = 20$$

Third Column

$$15 + 8 + 10 + 13 = 46 = \frac{46}{2} = \boxed{23}$$

11. (a) $2 \times 3 \times 5 \times 4 = 120$

$$120 \times 120 = 14400$$

12. (b) The sum of numbers of the left vertically half part is equal to the sum of the numbers on the right.

$$1 + 7 + 9 + 5 + 1 + 9 + 6 + 4 = 42$$

Therefore,

$$? + 7 + 8 + 4 + 2 + 8 + 8 + 3 = 42$$

$$\Rightarrow ? = 42 - 40 = \boxed{2}$$

13. (b) First column $(7 + 2) \times 4 = 36$

$$\text{Second Column } (6 + 8) \times 3 = 42$$

$$\text{Third Column } (9 + 4) \times ? = 26$$

$$\Rightarrow 13 \times ? = 26 \therefore ? = \frac{26}{13} = 2$$

14. (c) First Column

$$7 \times 4 - 3 = 28 - 3 = 25$$

Second Column

$$8 \times 9 - 2 = 72 - 2 = 70$$

Third column

$$6 \times 5 - ? = 29$$

$$\Rightarrow ? = 30 - 29 = \boxed{1}$$

15. (b) First Column

$$3 + 6 \times 9 = 3 + 54 = 57$$

Second Column

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

Third Column

$$5 + 8 \times 2 \Rightarrow 5 + 16 = \boxed{21}$$

16. (c) As, $3 \times 7 = 21$, $11 \times 7 = 77$

$$4 \times 9 = 36, 12 \times 9 = 108$$

$$\text{Therefore, } 14 \times 8 = 112$$

$$? \times 8 = 24$$

$$\boxed{? = 3}$$

17. (b) $12 \times 16 = 192 + 5 = 197$

$$16 \times 16 = 256 + 7 = 263$$

$$18 \times 20 = 360 \boxed{-4} = 356$$

18. (b) $8 \times 8 \times 88 = 5632$

$$7 \times 7 \times 77 = 3773$$

$$\text{Similarly, } 6 \times 6 \times ? = 3132$$

$$\therefore ? = \frac{3132}{6 \times 6} = \boxed{87}$$

19. (b) $28 \div 7 + 4 = 4 + 4 = 8$

$$35 \div 5 + 3 = 7 + 3 = 10$$

$$\text{Similarly, } 32 \div 8 + ? = 9$$

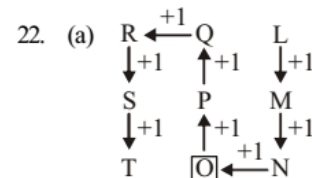
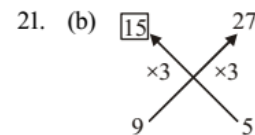
$$\Rightarrow 4 + ? = 9$$

$$\Rightarrow ? = 9 - 4 = \boxed{5}$$

20. (a) $(12 \times 12) \times 2 = 144 \times 2 = 288$

$$(5 \times 5) \times 2 = 50$$

$$\text{Similarly, } (19 \times 19) \times 2 = 361 \times 2 = \boxed{722}$$



23. (b) $7 \times (10 \div 2) = 35$, $15 \times (12 \div 2) = 90$

$$\text{Similarly, } 6 \times (x \div 2) = 12$$

$$\Rightarrow 6 \times \frac{x}{2} = 12$$

$$\Rightarrow 3x = 12$$

$$\therefore x = 12 \div 3 = \boxed{4}$$

24. (b) First Column

$$(3)^2 + (5)^2 + (1)^2$$

$$\Rightarrow 9 + 25 + 1 = 35$$

Second Column

$$(4)^2 + (7)^2 + (2)^2$$

$$\Rightarrow 16 + 49 + 4 = 69$$

Third column

$$(6)^2 + (3)^2 + (7)^2$$

$$\Rightarrow 36 + 9 + 49 = \boxed{94}$$

25. (c)
- First Column**

$$\sqrt{16} + \sqrt{25}$$

$$\Rightarrow 4 + 5 = 9$$

Second Column

$$\sqrt{49} + \sqrt{36}$$

$$\Rightarrow 7 + 6 = 13$$

Third column

$$\sqrt{64} + \sqrt{81}$$

$$\Rightarrow 8 + 9 = \boxed{17}$$

26. (d)
- $2^3 = 8; 3^3 = 27$

$$\therefore 4^3 = 64$$

27. (b)
- First Column**

$$\sqrt{81} \times \sqrt{4} \times \sqrt{36}$$

$$\Rightarrow 9 \times 2 \times 6 = 108$$

Second Column

$$\sqrt{64} \times \sqrt{9} \times \sqrt{16}$$

$$\Rightarrow 8 \times 3 \times 4 = 96$$

Third column

$$\sqrt{16} \times \sqrt{49} \times \sqrt{25}$$

$$\Rightarrow 4 \times 7 \times 5 = \boxed{140}$$

28. (d) First number in each row is the product of the second and third numbers.

First Row

$$25 = 5 \times 5$$

Second Row

$$30 = 5 \times 6$$

Third Row

$$35 = ? \times 5$$

$$\therefore ? = \frac{35}{5} = \boxed{7}$$

29. (d)
- First Column**

$$24 \times 2 + 5 = 48 + 5 = 53$$

Second Column

$$51 \times 4 + 7 = 204 + 7 = 211$$

Third Column

$$67 \times 6 + 5 = 402 + 5 = \boxed{407}$$

30. (c)
- First Figure**

$$3 + 5 + 2 + 4 = 14$$

$$\Rightarrow 14 + 13 = 27$$

Second Figure

$$6 + 2 + 3 + 5 = 16$$

$$\Rightarrow 16 + 21 = 37$$

Third Figure

$$2 + 2 + 9 + 5 = 18$$

$$\Rightarrow 18 + 29 = \boxed{47}$$

31. (c)
- First Column**
- $(3 \times 4 \times 5) - 2 = 58$

$$\text{Second Column } (5 \times 6 \times 2) - 2 = 58$$

$$\text{Third Column } (8 \times 4 \times 2) - 2 = 62$$

$$\text{Forth Column } (7 \times 6 \times 3) - 2 = \boxed{124}$$

32. (b)
- $\sqrt{\text{First number} \times \text{Third number}}$

= Second number in each column.

First Column

$$\sqrt{4 \times 9} = \sqrt{36} = 6$$

Second Column

$$\sqrt{3 \times 27} = \sqrt{81} = 9$$

Third column

$$\sqrt{2 \times ?} = 10 \Rightarrow 2 \times ? = 100$$

$$\therefore ? = \frac{100}{2} = \boxed{50}$$

33. (c)
- $84 \div 12 = 7$
- and
- $7 \times 2 = 14$

$$81 \div 9 = 9 \text{ and } 9 \times 2 = 18$$

$$88 \div 11 = 8 \text{ and } 8 \times 2 = \boxed{16}$$

34. (d)

$$54 \quad 30$$

$$24$$

$$30 + 24 = 54$$

$$112 \quad 42$$

$$70$$

$$42 + 70 = 112$$

Therefore,

$$? \quad 28$$

$$38$$

$$? = 28 + 38 = \boxed{66}$$

35. (d)
- First Row**

$$216 - 7 = 209; 209 - 7 = 202$$

Second Row

$$522 - 7 = 515; 515 - 7 = 508$$

Third Row

$$633 - 7 = 626; 626 - 7 = \boxed{619}$$

36. (b)
- $6 + 18 = 24$

$$24 + 36 = 60$$

$$60 + 60 = 120$$

$$120 + 90 = 210$$

$$210 + 126 = \boxed{336}$$

37. (d)
- First Column**

$$12 \times 3 + 4 = 40$$

Second Column

$$15 \times 4 + 6 = 66$$

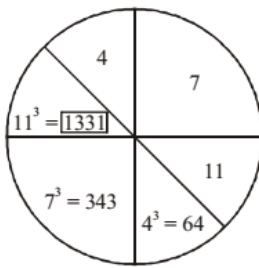
Third Column

$$16 \times 5 + 4 = \boxed{84}$$

38. (c) The second column number is the product of first and third column
 $25 = 5 \times 5$
 $49 = 7 \times 7$
 $\boxed{36} = 6 \times 6$
39. (c) Column wise
 Column I $(96 \div 6) + 5 = 21$
 Column II $(100 \div 4) + 7 = 32$
 Column III $(132 \div 6) + 3 = \boxed{25}$
40. (c) Moving clockwise, the terms are :
 $5 \times 2 + 2 = 12$
 $12 \times 2 + 2 = 26$
 $26 \times 2 + 2 = 54$
 $54 \times 2 + 2 = 110$
 So, missing number $= 110 \times 2 + 2 = \boxed{222}$
41. (c) $3 \times 5 \times 4 = 60$
 $5 \times 7 \times 2 = 70$, $8 \times 6 \times ? = 144$
 $? = \frac{144}{48} = 3$
42. (b) $6 \times 2 = 12 \times 2 = 24$
 $9 \times 2 = 18 \times 2 = 36$
 $18 \times 2 = 36 \times 2 = \boxed{72}$
43. (d) $7 \times 8 \times 3 = 168$
 $6 \times 6 \times 4 = 144$
 $6 \times x \times 5 = 120$
 $\therefore 30x = 120$
 $x = \frac{120}{30} = \boxed{4}$
44. (a) $8^2 + 3^2 + 1^2 = 74$
 $5^2 + 7^2 + 4^2 = 90$
 $6^2 + 5^2 + 2^2 = \boxed{65}$
45. (b) $46 - 22 = 24$
 $58 - 27 = 31$
 $68 - 32 = \boxed{36}$
46. (b) $156 - 121 = 35 \times 3 = 105$
 $187 - 145 = 42 \times 3 = 126$
 $190 - 115 = 75 \times 3 = \boxed{225}$
47. (a) $\boxed{12} \xrightarrow{+8} 20 \xrightarrow{+16} 36 \xrightarrow{+32} 68 \xrightarrow{+64} 132 \xrightarrow{+128} 260$
48. (b) $7 + 2^2 + 5 = 16$
 $9 + 4^2 + 7 = 32$
 $8 + 3^2 + 6 = \boxed{23}$
49. (c) $3 + 9 - 5 = 7$
 $2 + 8 - 6 = 4$
 $4 + 7 - 5 = \boxed{6}$

50. (c) $81 \times 9 = 729$
 $64 \times 8 = 512$
 $49 \times 7 = \boxed{343}$
51. (b) The pattern is
 $(18 + 17) + (9 - 6) = 38$
 $(11 + 11) + (19 - 9) = 32$
 $(15 + 6) + (26 - 3) = 44$
 $(12 + 8) + (39 - 19) = 40$
52. (b) $(100 + 12) - (28 + 25) = 59$
 Similarly, $(102 + 52) - (36 + 28) = 90$
53. (d) $(4 + 5) - (3 + 5) = 1$
 $(7 + 7) - (5 + 4) = 5$
 $(3 + 5) - (2 + 1) = \boxed{5}$
54. (b) $7 \times 3 - 5 = 16$
 $5 \times 4 - 7 = 13$
 $6 \times \boxed{7} - 4 = 38$
55. (c) $8 \times 2 + 1 = 17$
 $8 \times 17 + 1 = 137$
 $8 \times 137 + 1 = \boxed{1097}$
56. (c) $(36) - (14 + 12 + 7) = 3$
 $(54) - (9 + 11 + 16) = \boxed{18}$
57. (c) $9 \xrightarrow{+4} 13 \xrightarrow{-3} 10 \xrightarrow{+4} 14 \xrightarrow{-3} 11$
 $11 \xrightarrow{+4} 15 \xrightarrow{-3} 12 \xrightarrow{+4} 16 \xrightarrow{-3} 13$
 $13 \xrightarrow{+4} 17 \xrightarrow{-3} 14 \xrightarrow{+4} 18 \xrightarrow{-3} \boxed{15}$
 Hence, 15 is the correct answer.
58. (c) $3 \times 4 \times 2 = 24$
 $2 \times -2 \times -1 = 4$
 $6 \times 0 \times 5 = \boxed{0}$
59. (b) $7 \times 8 \times 2 = 112$, $5 \times 4 \times 8 = 160$
 $3 \times 9 \times ? = 162$, $27 \times ? = 162$
 $? = \frac{162}{27} = \boxed{6}$
60. (c) $2 \times 2 \times 3 = 12$
 $2 \times 3 \times 5 = 30$
 $5 \times 1 \times -1 = -5$
 $\therefore 4 \times 3 \times -1 = \boxed{-12}$
61. (b) $40 + 32 = \frac{72}{6} = 12$
 $30 + 24 = \frac{54}{6} = 9$
 $54 + \boxed{36} = \frac{90}{6} = 15$
62. (c) $1 \times 3 \times 4 \times 5 = 60$
 $6 \times 7 \times 1 \times 2 = 84$
 therefore, $3 \times 10 \times 3 \times 1 = \boxed{90}$

63. (d)



64. (d) Figure follows the Rule

$$(0 + 6 + 4 + 3 + 1 + 5) \times 7 = 19 \times 7 = 133$$

$$(8 + 2 + 5 + 3 + 6 + 4) \times 7 = 28 \times 7 = 196$$

$$(2 + 1 + 5 + 7 + 3 + 4) \times 7 = 22 \times 7 = \boxed{154}$$

65. (d) The pattern is:

$$(6 \times 7) + 8 + 4 = 54$$

$$(8 \times 4) + 12 + 7 = 51$$

$$(9 \times 5) + 14 + 9 = 68$$

66. (d) $3 + 4 + 3 = 10, 4 + 6 + 4 = 14$

$$8 + 6 + 6 = 20, 8 + 3 + 8 = \boxed{19}$$

67. (b) $9 \times 8 - 7 = 65, 6 \times 5 - 4 = 26$

$$7 \times 6 - 3 = \boxed{39}$$

68. (b) $225 = (15)^2 \Rightarrow (8 + 7)^2$

$$49 = (7)^2 \Rightarrow (3 + 4)^2$$

$$121 = (11)^2 \Rightarrow (6 + 5)^2$$

So missing number is 5.

69. (a)

4	$4 \div 2 = 8$	$8 \div 2 = 16$	$16 \div 2 = 32$
5	$5 \div 3 = 15$	$15 \div 3 = \boxed{45}$	$45 \div 3 = 135$
6	$6 \div 4 = 24$	$24 \div 4 = 96$	$96 \div 4 = 384$

70. (c) $9 \times 5 = 45$

$$8 \times 4 = 32$$

$$45 + 32 = 77$$

$$9 \times 6 = 54$$

$$3 \times 7 = 21$$

$$54 + 21 = \boxed{75}$$

71. (d)

874		
1	3	5
2	4	6
3	1	9
1	7	?

$$1 \ 3 \ 5$$

$$2 \ 4 \ 6$$

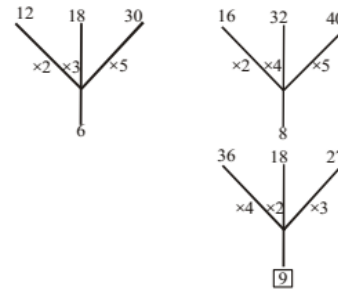
$$3 \ 1 \ 9$$

$$+ \ 1 \ 7 \ x$$

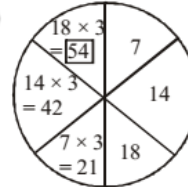
$$8 \ 7 \ 4$$

$$\text{So, } x = 4$$

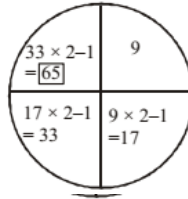
72. (d)



73. (c)



74. (b)



75. (a)

6	5	26
4	7	32
?	9	44

$$5 \times 4 + 6 = 26$$

$$7 \times 4 + 4 = 32$$

$$9 \times 4 + x = 44$$

$$x = 44 - 36$$

$$x = \boxed{8}$$

76. (b) Here $R_1 \times R_2 + R_3 \rightarrow R_4$

$$\therefore 8 \times x + 6 = 70$$

$$8x = 64$$

$$x = \boxed{8}$$

77. (a) Each column sum upto 99

$$\therefore 99 - (35 + 28) = \boxed{36}$$

78. (d)

7	10	5
16	40	8
15	?	9

$$(7 - 5) \times 5 = 10$$

$$(16 - 8) \times 5 = 40$$

$$(15 - 9) \times 5 = \boxed{30}$$

79. (c) $594 \div 3 = 198, 198 \div 3 = 66, 66 \div 3 = 22$ 80. (d) $(2 + 3) \times 15 = 75$

$$(7 + 4) \times 15 = 165$$

$$(14 + 5) \times 15 = \boxed{285}$$

81. (c) $7 + 9 - 6 = 10$

$$5 + 8 - 3 = 10$$

$$9 + 6 - 4 = \boxed{11}$$

82. (c)
 83. (d) $3^1 = 3, 3^2 = 9, 3^4 = 81, 3^8 = 6561$
 84. (c) $3^3 + 3 = 30$
 $4^3 + 4 = 68$
 $5^3 + 5 = 130$

85. (c) As,
- | | | |
|----------------|-------------|--------|
| $144 = (12)^2$ | $= 25 - 12$ | $= 13$ |
| $196 = (14)^2$ | $= 29 - 14$ | $= 15$ |
| $324 = (18)^2$ | $= 37 - 18$ | $= 19$ |

86. (a) $(16 \times 2) \div 8 = 4$
 $(25 \times 5) \div 25 = 5$
 $(48 \times 3) \div 36 = 4$
 $(8 \times 6) \div 16 = 3$

87. (d) As,
 $3 \times 1 \times 5 \times 2 + 1 = 31$ and
 $4 \times 6 \times 3 \times 2 + 1 = 145$
 Similarly,
 $2 \times 7 \times 5 \times 1 + 1 = 71$

88. (b) Here,
 $7 \times 2 \times 8 + 3 = 115$
 $6 \times 5 \times 9 + 3 = 273$
 $\therefore 3 \times 1 \times 4 + 3 = 15$

So, answer is 15.

89. (b) The pattern is :

$$1512 \div 3 = 504$$

$$504 \div 3 = 168$$

$$168 \div 3 = 56.$$

So, answer is 56.

90. (a) The pattern is :

As,

$$3 \times 10 \times 6 + 6 = 186$$

$$9 \times 5 \times 3 + 3 = 138$$

$$5 \times 7 \times 1 + 1 = 36$$

Similarly,

$$3 \times 2 \times 5 + 5 = 35.$$

91. (b) $\sqrt{49} = 7$ $\sqrt{169} = 13$ $\sqrt{484} = 22$
 $\sqrt{81} = \frac{+9}{16}$ $\sqrt{144} = \frac{+12}{25}$ $\sqrt{625} = \frac{+25}{47}$

So, Answer is 47.

92. (a) The pattern is as follows :

$$(7 \times 3 \times 2) = 42$$

$$(3 \times 4 \times 7) = 84$$

$$(10 \times 7 \times x) = 140$$

$$\Rightarrow \therefore x = \frac{140}{70} = 2$$

$\therefore$ The missing number is = 2.

93. (d) The pattern is as follows :

$$(7 \times 6) + (6 \times 5) = 42 + 30 = 72$$

$$(3 \times 11) + (11 \times 1) = 33 + 11 = 44$$

$$(2 \times 5) + (5 \times 8) = 10 + 40 = 50$$

94. (c) The pattern is as follows :

$$(1 + 8 + 9 + 4) = 22$$

$$(7 + 6 + 2 + 7) = 22$$

$$(2 + 4 + 5 + ?) = 22$$

$$? + 11 = 22$$

$$? = 22 - 11 = 11$$

95. (a) As, $(4 + 6 + 9) \times 2 = 38$

$$(8 + 9 + 11) \times 2 = 56$$

Similarly,

$$(12 + 13 + 11) \times 2 = 72$$

96. (c) The pattern is :

$$B \xrightarrow{+3} E \xrightarrow{+4} I \xrightarrow{+5} N$$

$$N \xrightarrow{+3} Q \xrightarrow{+4} U \xrightarrow{+5} Z$$

$$S \xrightarrow{+3} V \xrightarrow{+4} \boxed{Z} \xrightarrow{+5} E$$

97. (a) According to question,

As,

$$(5 + 7 + 6) \times 2 = 36$$

$$(9 + 11 + 8) \times 2 = 56$$

Similarly,

$$(10 + ? + 17) \times 2 = 64$$

$$(10 + ? + 17) = \frac{64}{2} = 32$$

$$27 + ? = 32$$

$$? = 32 - 27 = 5$$

98. (b) The pattern is :

$$5 + 6 = 11 \quad \text{and} \quad 5 \times 6 = 30$$

$$8 + 9 = 17 \quad \text{and} \quad 8 \times 9 = 72$$

$$11 + 12 = 23 \quad \text{and} \quad 11 \times 12 = 132$$

99. (c)

$$19 \quad 78 = (19 + 20) \times 2 \quad 20$$

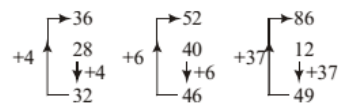
$$25 \quad 144 = (25 + 47) \times 2 \quad 47$$

$$16 \quad 58 = (16 + 13) \times 2 \quad 13$$

100. (a)

12	7	$95 = (12 + 7)(12 - 7)$
14	8	$132 = (14 + 8)(14 - 8)$
16	9	$175 = (16 + 9)(16 - 9)$

101. (c)



102. (b)

$$\begin{array}{ccc} 2 & 3 & 5 \\ (2+3)^3 = 125 & (3+4)^3 = 343 & (5+1)^3 = 216 \\ 3 & 4 & 1 \end{array}$$

Hence, ? = 1

103. (d) The pattern is :

$$(4 + 7) = 11$$

$$(9 + 4) = 13$$

$$(19 - 9) = 10$$

So, option (d) is correct answer.

104. (b) $\sqrt{16} + \sqrt{36} = 10$

$$\sqrt{25} + \sqrt{49} = 12$$

$$\sqrt{81} + \sqrt{9} = 12$$

105. (c) $(3+7)=10, (5+5)=10$

$$(10+6)=16, (8+8)=16$$

106. (c) As, $8 \times (6-1) \Rightarrow 8 \times 5 = 40$

$$25 \times (21-1) \Rightarrow 25 \times 20 = 500$$

$$\text{Similarly, } 7 \times (14-1) \Rightarrow 7 \times 13 = 91$$

107. (b) The pattern is as —

$$7+6+3=16 \times 3 \rightarrow 48$$

$$4+9+8=21 \times 3 \rightarrow 63$$

$$2+5+7=14 \times 3 \rightarrow \boxed{42}$$

108. (d) The Pattern in the Column is as :

$$23-18=5, \quad (5)^2=25$$

$$41-33=8, \quad (8)^2=64$$

$$38-29=9, \quad (9)^2=81$$

109. (c) First column = $55-48=7 \Rightarrow 7^2=49$

$$\text{Similarly, Third column} = 47-40=7 \Rightarrow 7^2=49$$

110. (c) $4^3+8^2=128$

$$3^3+9^2=108$$

$$5^3+10^2=225$$

111. (a) $(15+12) \times (15-12) = 81$

$$(17+14) \times (17-14) = 93$$

$$(15+11) \times (15-11) = 104$$

112. (b) $14+16=30 \times (16-14) = 30 \times 2 = 60$

$$11+17=28 \times (17-11) = 28 \times 6 = 168$$

$$15+18=33 \times (18-15) = 33 \times 3 = 99$$

113. (b) The pattern is,

$$(8+1) \times (6+1) = 9 \times 7 = 63$$

$$(11+1) \times (5+1) = 12 \times 6 = 72$$

Similarly,

$$(?+1) \times (7+1) = (?+1) \times 8 = 48$$

$$\Rightarrow ?+1 = \frac{48}{8} = 6$$

$$\Rightarrow ? = 6 - 1 = 5$$

114. (a) $58-28=30$

$$= 30 \times 4 - 2 = 118$$

Similarly,

$$96-47=49$$

$$\Rightarrow 49 \times 4 - 2 = 194$$

115. (c) The pattern is :

$$54-40=14 \rightarrow 14 \times 4 = 56$$

$$68-57=11 \rightarrow 11 \times 4 = 44$$

Similarly,

$$47-39=8 \rightarrow 8 \times 4 = 32$$