

Similarlity

————— *Reasoning with Mohit Kawatra*

1. (55, 11, 25), (64, 16, 16)
SSC CGL 14/07/2023
(a) (33, 11, 9)
(b) (33, 11, 22)
(c) (33, 11, 3)
(d) (33, 11, 10)
2. $5 : 45 :: 3 : 3 :: 6 : ?$
SSC CGL 14/07/2023
(a) 90
(b) 106
(c) 110
(d) 96
3. (8, 44, 3), (12, 60, 3)
SSC CGL 14/07/2023
(a) (12, 68, 5)
(b) (8, 50, 2)
(c) (17, 56, 9)
(d) (23, 98, 5)
4. (31, 47, 35), (51, 67, 55)
SSC CGL 14/07/2023
(a) (33, 47, 35)
(b) (32, 39, 27)
(c) (13, 29, 17)
(d) (21, 36, 35)
5. (12, 8, 80), (16, 10, 131)
SSC CGL 14/07/2023
(a) (11, 5, 55)
(b) (13, 4, 160)
(c) (14, 12, 126)
(d) (9, 6, 54)
6. (82, 35, 78), (18, 27, 30)
SSC CGL 14/07/2023
(a) (21, 27, 24)
(b) (15, 36, 38)
(c) (27, 33, 40)
(d) (20, 25, 32)
7. (49, 63, 441), (7, 14, 14)
SSC CGL 14/07/2023
(a) (7, 28, 35)
(b) (14, 28, 56)
(c) (7, 14, 45)
(d) (12, 18, 324)
8. (85, 24, 133), (97, 36, 145)
SSC CGL 17/07/2023
(a) (79, 18, 127)
(b) (71, 15, 124)
(c) (86, 23, 135)
(d) (67, 12, 111)
9. (2, 114, 19), (12, 216, 6)
SSC CGL 17/07/2023
(a) (5, 20, 2)
(b) (6, 144, 8)
(c) (11, 176, 4)
(d) (4, 28, 7)
10. (4, 5, 83), (5, 5, 102)
SSC CGL 17/07/2023
(a) (8, 9, 330)
(b) (3, 3, 11)
(c) (7, 6, 170)
(d) (8, 3, 123)
11. (312, 24, 13), (645, 43, 15)
SSC CGL 17/07/2023
(a) (347, 27, 12)
(b) (347, 22, 17)
(c) (374, 17, 12)
(d) (374, 22, 17)
12. (8, 388, 18), (11, 137, 4)
SSC CGL 18/07/2023
(a) (15, 230, 2)
(b) (3, 51, 7)
(c) (10, 118, 9)
(d) (14, 221, 5)
13. (24, 3, 10), (144, 9, 18)
SSC CGL 18/07/2023
(a) (54, 9, 4)
(b) (156, 8, 19)
(c) (72, 8, 9)
(d) (133, 7, 21)
14. (12, 40, 14), (15, 33, 9)
SSC CGL 18/07/2023
(a) (11, 105, 42)
(b) (21, 35, 41)
(c) (21, 95, 35)
(d) (21, 91, 35)

15. $17 : 189 :: 13 : 69 :: 18 : ?$

SSC CGL 18/07/2023

- (a) 224
- (b) 241
- (c) 214
- (d) 242

16. $(36, 6, 18), (35, 5, 21)$

SSC CGL 18/07/2023

- (a) $(49, 7, 21)$
- (b) $(63, 7, 98)$
- (c) $(100, 5, 40)$
- (d) $(76, 13, 5)$

17. $(54, 32, 66), (49, 31, 54)$

SSC CGL 18/07/2023

- (a) $(39, 18, 63)$
- (b) $(44, 28, 52)$
- (c) $(68, 49, 55)$
- (d) $(55, 30, 70)$

18. $121 : 10 :: 256 : 15 :: 441 : ?$

SSC CGL 18/07/2023

- (a) 17
- (b) 20
- (c) 21
- (d) 19

19. $(168, 35, 143), (182, 65, 127)$

SSC CGL 18/07/2023

- (a) $(142, 83, 69)$
- (b) $(253, 99, 154)$
- (c) $(203, 89, 117)$
- (d) $(159, 62, 87)$

20. $7 : 21 :: 14 : 42 :: 18 : ?$

SSC CGL 19/07/2023

- (a) 57
- (b) 54
- (c) 63
- (d) 72

21. $(13, 64, 5), (10, 1, 9)$

SSC CGL 19/07/2023

- (a) $(15, 144, 9)$
- (b) $(16, 256, 9)$
- (c) $(15, 306, 9)$
- (d) $(16, 49, 9)$

22. $(15, 21, 10), (25, 36, 17)$

SSC CGL 19/07/2023

- (a) $(100, 45, 87)$
- (b) $(100, 33, 31)$
- (c) $(123, 23, 56)$
- (d) $(50, 45, 31)$

23. $(47, 108, 169), (22, 83, 144)$

SSC CGL 19/07/2023

- (a) $(11, 73, 133)$
- (b) $(51, 112, 173)$
- (c) $(33, 121, 181)$
- (d) $(8, 64, 130)$

24. $243 : 9 :: 72 : 6 :: 576 : ?$

SSC CGL 19/07/2023

- (a) 12
- (b) 18
- (c) 24
- (d) 14

25. $(100, 2, 150), (50, 5, 240)$

SSC CGL 19/07/2023

- (a) $(10, 8, 98)$
- (b) $(14, 16, 8)$
- (c) $(10, 5, 200)$
- (d) $(16, 8, 126)$

26. $(12, 7, 1385), (19, 15, 3484)$

SSC CGL 19/07/2023

- (a) $(17, 15, 1550)$
- (b) $(11, 7, 955)$
- (c) $(21, 16, 5165)$
- (d) $(16, 14, 1321)$

27. $(192, 14, 4), (524, 23, 5)$

SSC CGL 19/07/2023

- (a) $(63, 8, 3)$
- (b) $(2, 2, 2)$
- (c) $(8, 3, 2)$
- (d) $(10, 6, 5)$

28. Select the option in which the numbers are not related in same way as in given number.

 $(4, 5, 82), (6, 11, 314)$

SSC CGL 19/07/2023

- (a) $(7, 10, 298)$
- (b) $(13, 15, 788)$
- (c) $(11, 9, 560)$
- (d) $(9, 8, 290)$

29. (7, 5, 16), (12, 10, 36)

SSC CGL 19/07/2023

- (a) (10, 6, 144)
 (b) (9, 8, 12)
 (c) (8, 7, 59)
 (d) (8, 7, 7)

30. (14, 10, 296), (8, 17, 353)

SSC CGL 20/07/2023

- (a) (29, 7, 690)
 (b) (18, 6, 567)
 (c) (5, 13, 194)
 (d) (12, 3, 135)

31. (12, 4, 64), (8, 6, 14)

SSC CGL 20/07/2023

- (a) (7, 3, 28)
 (b) (10, 6, 42)
 (c) (11, 9, 15)
 (d) (9, 5, 28)

32. (14, 60, 16), (12, 40, 8)

SSC CGL 20/07/2023

- (a) (19, 80, 21)
 (b) (15, 45, 30)
 (c) (25, 120, 15)
 (d) (20, 30, 40)

33. (15, 5, 375), (14, 3, 210)

SSC CGL 20/07/2023

- (a) (10, 12, 320)
 (b) (17, 19, 920)
 (c) (14, 15, 780)
 (d) (11, 16, 880)

34. $9 : 702 :: 3 : 18 :: 6 : ?$

SSC CGL 20/07/2023

- (a) 156
 (b) 172
 (c) 188
 (d) 198

35. (6, 7, 98), (8, 10, 182)

SSC CGL 20/07/2023

- (a) (10, 12, 150)
 (b) (5, 9, 120)
 (c) (12, 14, 434)
 (d) (4, 5, 50)

36. $32 : 8 :: 72 : 12 :: 128 : ?$

SSC CGL 20/07/2023

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

37. $192 : 24 :: 48 : 12 :: 432 : ?$

SSC CGL 20/07/2023

- (a) 42
 (b) 32
 (c) 48
 (d) 36

38. (1000, 100, 10), (38, 19, 2)

SSC CGL 20/07/2023

- (a) (125, 25, 5)
 (b) (5, 5, 5)
 (c) (3, 3, 9)
 (d) (16, 8, 4)

39. (300, 100, 100), (88, 66, 11)

SSC CGL 20/07/2023

- (a) (60, 40, 20)
 (b) (44, 22, 11)
 (c) (90, 50, 70)
 (d) (50, 4, 25)

40. (26, 62, 140), (12, 39, 75)

SSC CGL 21/07/2023

- (a) (20, 38, 108)
 (b) (20, 48, 108)
 (c) (50, 48, 108)
 (d) (20, 48, 98)

41. (5, 30, 60), (11, 66, 132)

SSC CGL 21/07/2023

- (a) (6, 42, 148)
 (b) (14, 84, 168)
 (c) (14, 16, 118)
 (d) (2, 10, 16)

42. (5, 7, 140), (6, 4, 96)

SSC CGL 21/07/2023

- (a) (7, 3, 63)
 (b) (5, 14, 210)
 (c) (9, 2, 72)
 (d) (6, 7, 216)

43. (34, 12, 10), (56, 17, 22)
SSC CGL 21/07/2023

- (a) (56, 19, 8)
- (b) (46, 19, 8)
- (c) (46, 19, 18)
- (d) (465, 49, 8)

44. (15, 45, 90), (8, 24, 48)
SSC CGL 21/07/2023

- (a) (9, 27, 45)
- (b) (7, 21, 24)
- (c) (6, 18, 36)
- (d) (12, 36, 68)

45. (4, 1024, 64), (225, 81, 135)
SSC CGL 21/07/2023

- (a) (30, 676, 78)
- (b) (27, 125, 15)
- (c) (49, 841, 203)
- (d) (64, 256, 512)

46. (36, 24, 65), (40, 54, 19)
SSC CGL 21/07/2023

- (a) (10, 21, 321)
- (b) (20, 18, 16)
- (c) (13, 8, 98)
- (d) (30, 14, 56)

47. (189, 148, 107), (206, 165, 124)
SSC CGL 21/07/2023

- (a) (84, 67, 39)
- (b) (121, 85, 45)
- (c) (76, 46, 26)
- (d) (108, 67, 26)

48. (121, 81, 2), (88, 54, 2)
SSC CGL 24/07/2023

- (a) (13, 5, 9)
- (b) (78, 6, 45)
- (c) (31, 56, 98)
- (d) (77, 18, 5)

49. (71, 114, 157), (36, 79, 122)
SSC CGL 24/07/2023

- (a) (52, 95, 137)
- (b) (25, 68, 111)
- (c) (16, 56, 98)
- (d) (5, 45, 88)

50. (4, 14, 828), (3, 10, 620)
SSC CGL 24/07/2023

- (a) (1, 10, 100)
- (b) (2, 50, 500)
- (c) (5, 10, 980)
- (d) (4, 32, 98)

51. (4, 16, 8), (2, 14, 9)
SSC CGL 24/07/2023

- (a) (2, 8, 10)
- (b) (2, 8, 6)
- (c) (2, 8, 16)
- (d) (2, 8, 1)

52. (6, 4, 8), (17, 6, 28)
SSC CGL 24/07/2023

- (a) (8, 3, 12)
- (b) (12, 9, 11)
- (c) (11, 4, 19)
- (d) (13, 5, 21)

53. (7, 150, 23), (11, 75, 4)
SSC CGL 24/07/2023

- (a) (4, 108, 16)
- (b) (8, 90, 11)
- (c) (9, 80, 11)
- (d) (15, 140, 13)

54. (28, 65, 261), (37, 83, 342)
SSC CGL 24/07/2023

- (a) (39, 42, 393)
- (b) (46, 92, 414)
- (c) (29, 54, 358)
- (d) (78, 95, 485)

55. (15, 28, 41), (19, 32, 45)
SSC CGL 24/07/2023

- (a) (16, 28, 43)
- (b) (12, 25, 36)
- (c) (24, 38, 55)
- (d) (22, 35, 48)

56. (9, 20, 31), (38, 49, 60)
SSC CGL 25/07/2023

- (a) (63, 60, 25)
- (b) (15, 20, 31)
- (c) (25, 69, 45)
- (d) (14, 24, 34)

57. (2, 7, 27), (6, 15, 63)
SSC CGL 25/07/2023
(a) (3, 21, 24)
(b) (9, 8, 50)
(c) (12, 4, 40)
(d) (8, 8, 48)
58. (25, 150, 3), (18, 180, 5)
SSC CGL 25/07/2023
(a) (13, 39, 3)
(b) (101, 408, 2)
(c) (52, 728, 7)
(d) (61, 601, 5)
59. (10, 5, 52), (35, 7, 250)
SSC CGL 25/07/2023
(a) (8, 4, 34)
(b) (14, 8, 90)
(c) (8, 9, 10)
(d) (20, 5, 300)
60. (12, 5, 29), (19, 12, 50)
SSC CGL 25/07/2023
(a) (8, 15, 21)
(b) (16, 12, 34)
(c) (15, 14, 44)
(d) (17, 11, 55)
61. (4, 14, 56), (6, 15, 90)
SSC CGL 25/07/2023
(a) (8, 13, 106)
(b) (9, 15, 125)
(c) (7, 17, 118)
(d) (7, 16, 112)
62. (47, 11, 61), (13, 68, 84)
SSC CGL 26/07/2023
(a) (52, 88, 143)
(b) (55, 11, 70)
(c) (16, 62, 80)
(d) (33, 43, 83)
63. (7, 15, 11), (9, 19, 14)
SSC CGL 26/07/2023
(a) (8, 16, 13)
(b) (6, 13, 9)
(c) (13, 25, 21)
(d) (11, 23, 17)
64. (2, 9, 85), (3, 9, 90)
SSC CGL 26/07/2023
(a) (7, 23, 130)
(b) (7, 9, 130)
(c) (13, 9, 130)
(d) (12, 9, 130)
65. (4, 81, 5), (3, 144, 9)
SSC CGL 26/07/2023
(a) (2, 100, 8)
(b) (2, 80, 8)
(c) (2, 256, 8)
(d) (2, 64, 8)
66. (60, 15, 40), (100, 50, 20)
SSC CGL 26/07/2023
(a) (200, 40, 50)
(b) (12, 45, 89)
(c) (10, 5, 30)
(d) (40, 8, 10)
67. (15, 23, 31), (33, 41, 49)
SSC CGL 26/07/2023
(a) (21, 29, 43)
(b) (20, 28, 36)
(c) (20, 33, 28)
(d) (35, 43, 56)
68. (17, 26, 37), (170, 197, 226)
SSC CGL 26/07/2023
(a) (48, 63, 80)
(b) (45, 52, 105)
(c) (16, 28, 36)
(d) (52, 65, 83)
69. (7, 65), (11, 145)
SSC CGL 26/07/2023
(a) (15, 140)
(b) (8, 82)
(c) (12, 168)
(d) (9, 70)
70. (39, 65), (63, 105)
SSC CGL 27/07/2023
(a) (66, 165)
(b) (96, 160)
(c) (72, 180)
(d) (84, 155)

71. (3, 6, 54), (4, 2, 24)

SSC CGL 27/07/2023

- (a) (9, 6, 60)
- (b) (5, 3, 30)
- (c) (3, 4, 36)
- (d) (2, 6, 48)

72. (13, 17, 23), (8, 12, 18)

SSC CGL 27/07/2023

- (a) (17, 21, 15)
- (b) (18, 22, 28)
- (c) (11, 15, 23)
- (d) (5, 9, 16)

73. (12, 8, 20), (7, 3, 15)

SSC CGL 27/07/2023

- (a) (9, 4, 19)
- (b) (10, 5, 45)
- (c) (8, 5, 12)
- (d) (11, 7, 17)

74. (239, 127, 212), (96, 64, 132)

SSC CGL 27/07/2023

- (a) (262, 132, 240)
- (b) (140, 76, 181)
- (c) (167, 89, 178)
- (d) (110, 91, 159)

75. (8, 27, 125), (64, 1331, 1728)

SSC MTS 02/05/2023

- (a) (289, 212, 196)
- (b) (200, 215, 256)
- (c) (125, 172, 144)
- (d) (216, 343, 512)

76. (14, 20, 26), (22, 28, 34)

SSC MTS 02/05/2023

- (a) (32, 38, 44)
- (b) (4, 6, 11)
- (c) (25, 30, 44)
- (d) (10, 20, 24)

77. (12, 60, 5), (14, 56, 4)

SSC MTS 03/05/2023

- (a) (7, 70, 8)
- (b) (20, 5, 7)
- (c) (10, 100, 10)
- (d) (4, 20, 8)

78. (100, 150, 125), (500, 400, 450)

SSC MTS 03/05/2023

- (a) (14, 16, 28)
- (b) (120, 100, 130)
- (c) (200, 400, 300)
- (d) (180, 140, 260)

79. (4, 64, 4), (5, 100, 5)

SSC MTS 04/05/2023

- (a) (8, 256, 8)
- (b) (6, 196, 6)
- (c) (10, 200, 10)
- (d) (25, 100, 4)

80. (4, 3, 49), (5, 4, 81)

SSC MTS 04/05/2023

- (a) (6, 2, 36)
- (b) (5, 4, 100)
- (c) (7, 5, 121)
- (d) (6, 5, 121)

81. (10, 50, 250), (20, 100, 500)

SSC MTS 12/05/2023

- (a) (14, 70, 300)
- (b) (20, 80, 500)
- (c) (10, 50, 200)
- (d) (8, 40, 200)

82. (144, 8, 4), (256, 12, 4)

SSC MTS 12/05/2023

- (a) (324, 16, 3)
- (b) (400, 16, 4)
- (c) (225, 7, 6)
- (d) (121, 7, 5)

83. (243, 81, 27), (99, 33, 11)

SSC MTS 12/05/2023

- (a) (27, 25, 23)
- (b) (27, 9, 3)
- (c) (27, 20, 19)
- (d) (27, 18, 9)

84. (7, 49, 343), (8, 64, 512)

SSC MTS 15/05/2023

- (a) (6, 36, 206)
- (b) (5, 25, 225)
- (c) (11, 121, 1221)
- (d) (9, 81, 729)

85. (10, 30, 90), (20, 60, 180)
SSC MTS 15/05/2023

- (a) (30, 45, 60)
- (b) (30, 90, 270)
- (c) (30, 60, 90)
- (d) (30, 90, 310)

86. (17, 35, 72), (13, 27, 56)
SSC MTS 16/05/2023

- (a) (11, 24, 50)
- (b) (15, 31, 64)
- (c) (18, 36, 110)
- (d) (12, 25, 50)

87. (4, 6, 72), (5, 7, 105)
SSC MTS 18/05/2023

- (a) (6, 8, 144)
- (b) (2, 5, 40)
- (c) (3, 6, 36)
- (d) (6, 9, 108)

88. (19, 37, 72), (15, 29, 56)
SSC MTS 18/05/2023

- (a) (11, 21, 40)
- (b) (16, 30, 62)
- (c) (18, 35, 69)
- (d) (12, 25, 50)

89. (13, 28, 58), (16, 34, 70)
SSC MTS 18/05/2023

- (a) (15, 32, 64)
- (b) (18, 36, 110)
- (c) (11, 24, 50)
- (d) (12, 26, 56)

90. (20, 70, 120), (120, 170, 220)
SSC MTS 18/05/2023

- (a) (420, 470, 520)
- (b) (320, 380, 420)
- (c) (420, 470, 530)
- (d) (220, 270, 330)

91. (2, 3, 5), (5, 7, 11)
SSC MTS 18/05/2023

- (a) (12, 15, 18)
- (b) (11, 13, 17)
- (c) (4, 6, 7)
- (d) (5, 10, 11)

92. (4, 1, 25), (8, 5, 169)
SSC MTS 18/05/2023

- (a) (10, 8, 361)
- (b) (4, 9, 144)
- (c) (5, 9, 196)
- (d) (2, 7, 100)

93. (56, 121, 242), (78, 165, 726)
SSC MTS 18/05/2023

- (a) (28, 110, 220)
- (b) (36, 99, 198)
- (c) (44, 88, 166)
- (d) (62, 98, 187)

94. (79, 89, 101), (31, 41, 47)
SSC MTS 18/05/2023

- (a) (43, 47, 59)
- (b) (53, 61, 67)
- (c) (29, 37, 43)
- (d) (17, 19, 23)

95. (36, 99, 106), (72, 207, 214)
SSC MTS 18/05/2023

- (a) (64, 193, 200)
- (b) (48, 125, 132)
- (c) (24, 63, 70)
- (d) (52, 157, 164)

96. (136, 48, 184), (189, 37, 226)
SSC MTS 18/05/2023

- (a) (211, 17, 238)
- (b) (203, 69, 262)
- (c) (148, 84, 222)
- (d) (116, 62, 178)

97. (18, 9, 36), (36, 18, 72)
SSC MTS 18/05/2023

- (a) (32, 16, 64)
- (b) (24, 12, 36)
- (c) (58, 29, 118)
- (d) (46, 33, 132)

98. (39, 78, 81), (42, 84, 87)
SSC MTS 18/05/2023

- (a) (21, 42, 49)
- (b) (60, 120, 124)
- (c) (84, 168, 171)
- (d) (43, 86, 95)

99. (59, 118, 236), (64, 128, 256)
SSC MTS 18/05/2023
(a) (37, 74, 138)
(b) (63, 126, 242)
(c) (44, 88, 186)
(d) (82, 164, 328)

100. (18, 69, 279), (12, 45, 183)
SSC MTS 18/05/2023
(a) (14, 39, 159)
(b) (16, 67, 265)
(c) (32, 125, 503)
(d) (22, 85, 345)

Answer Key:-

1.(a)	2.(d)	3.(a)	4.(c)	5.(d)	6.(c)	7.(b)	8.(a)	9.(b)	10.(d)
11.(d)	12.(d)	13.(d)	14.(d)	15.(a)	16.(a)	17.(a)	18.(b)	19.(a)	20.(b)
21.(d)	22.(b)	23.(b)	24.(a)	25.(d)	26.(c)	27.(b)	28.(c)	29.(d)	30.(c)
31.(d)	32.(a)	33.(d)	34.(d)	35.(d)	36.(b)	37.(d)	38.(a)	39.(b)	40.(b)
41.(b)	42.(c)	43.(b)	44.(c)	45.(c)	46.(b)	47.(d)	48.(d)	49.(b)	50.(b)
51.(b)	52.(d)	53.(d)	54.(b)	55.(d)	56.(d)	57.(d)	58.(c)	59.(a)	60.(c)
61.(d)	62.(a)	63.(d)	64.(b)	65.(a)	66.(a)	67.(b)	68.(a)	69.(b)	70.(b)
71.(c)	72.(b)	73.(a)	74.(c)	75.(d)	76.(a)	77.(c)	78.(c)	79.(a)	80.(d)
81.(d)	82.(b)	83.(b)	84.(d)	85.(b)	86.(b)	87.(a)	88.(a)	89.(c)	90.(a)
91.(b)	92.(c)	93.(b)	94.(c)	95.(c)	96.(d)	97.(a)	98.(c)	99.(d)	100.(c)

Solution

- 1.(a) Logic :- (First number $\div$ Second number)² = Third number
 (55, 11, 25):- (55 $\div$ 11)² = (5)² = 25
 (64, 16, 16):- (64 $\div$ 16)² = (4)² = 16
 Similarly,
 (33, 11, 9):- (33 $\div$ 11)² = (3)² = 9

- 2.(d) Logic - (Second number $\div$ First number) = Perfect square
 5:45:- (45 $\div$ 5) = 9 = Perfect Square
 3:3:- (3 $\div$ 3) = 1 = Perfect Square
 Similarly,
 6: ? :- (96 $\div$ 6) = 16 = Perfect Square

- 3.(a) Logic: (First no. + Third no.) $\times$ 4 = Second no.
 (8, 44, 3) $\rightarrow$ (8+3) $\times$ 4 = 11 $\times$ 4 = 44
 (12, 60, 3) $\rightarrow$ (12+3) $\times$ 4 = 15 $\times$ 4 = 60
 Similarly,
 (12, 68, 5) $\rightarrow$ (12+5) $\times$ 4 = 17 $\times$ 4 = 68

- 4.(c) Logic: (3rd no. - 1st no.)² + 1st no. = 2nd no.
 (31, 47, 35) $\rightarrow$ (35-31)² + 31 = 47
 (51, 67, 55) $\rightarrow$ (55-51)² + 51 = 67
 Similarly,
 (13, 29, 17) $\rightarrow$ (17-13)² + 13 = 29

- 5.(d) Logic: (First no.)² - $\left(\frac{\text{Second number}}{2}\right)^3$ = Third no.

$$(12, 8, 80) \rightarrow (12)^2 - \left(\frac{8}{2}\right)^3 = 80$$

$$(16, 10, 131) \rightarrow (16)^2 - \left(\frac{10}{2}\right)^3 = 131$$

$$(9, 6, 54) \rightarrow (9)^2 - \left(\frac{6}{2}\right)^3 = 54$$

- 6.(c) Logic :- (First number + Second number) = (Third number $\div$ 2) $\times$ 3
 (82, 35, 78):- (82 + 35) = (78 $\div$ 2) $\times$ 3,
 117 = 39 $\times$ 3, 117 = 117
 (18, 27, 30):- (18+27) = (30 $\div$ 2) $\times$ 3,
 45 = 15 $\times$ 3, 45 = 45
 Similarly,
 (27, 33, 40):- (27+33) = (40 $\div$ 2) $\times$ 3,
 60 = 20 $\times$ 3, 60 = 60

- 7.(b) Logic :- (Third number $\div$ First number) $\times$ 7 = Second number
 (49, 63, 441):- (441 $\div$ 49) $\times$ 7 $\rightarrow$ (9) $\times$ 7 = 63
 (7, 14, 14):- (14 $\div$ 7) $\times$ 7 $\rightarrow$ (2) $\times$ 7 = 14
 Similarly,
 (14, 28, 56):- (56 $\div$ 14) $\times$ 7 $\rightarrow$ (4) $\times$ 7 = 28

- 8.(a) Logic:-
 (First number - Second number) = 61,
 (Third number - Second number) = 109
 (85, 24, 133):- (85-24)=61, (133-24) = 109
 (97, 36, 145):- (97-36) = 61, (145-36) = 109
 Similarly,
 (79, 18, 127) :- (79-18) = 61, (127-18) = 109

- 9.(b) Logic:- Second number $\div$ (First number $\times$ Third number) = 3
 (2, 114, 19):- 114 $\div$ (2 $\times$ 19) = 3,
 114 $\div$ 38 = 3
 (12, 216, 6):- 216 $\div$ (12 $\times$ 6) = 3,
 216 $\div$ 72 = 3
 Similarly,
 (6, 144, 8):- 144 $\div$ (6 $\times$ 8) = 3, 144 $\div$ 48 = 3

- 10.(d) Logic:- (First number + Second number)² + 2 = Third number
 (4, 5, 83):- (4+5)² + 2 = 83, 81+2 = 83
 (5, 5, 102): (5+5)² + 2 = 102, 100 + 2 = 102
 Similarly,
 (8, 3, 123):- (8+3)² + 2 = 123,
 121+ 2 = 123

- 11.(d) Logic :- (First number) $\div$ (Third number) = Second number
 (312, 24, 13) - (312) $\div$ 13 = 24
 (645, 43, 15):- (645) $\div$ 15 = 43
 Similarly,
 (374, 22, 17):- (374) $\div$ 17 = 22

12.(d) Logic:- (First number)² + (Third number)² = Second number
 (8, 388, 18):- (8)² + (18)² = 388,
 64 + 324 = 388
 (11, 137, 4):- (11)² + (4)² = 137,
 121 + 16 = 137
 Similarly,
 (14, 221, 5):- (14)² + (5)² = 221,
 196 + 25 = 221

13.(d) Logic:- (First number ÷ Second number) + 2 = Third number
 (24, 3, 10):- (24 ÷ 3) + 2 = 10, 8 + 2 = 10
 (144, 9, 18):- (144 ÷ 9) + 2 = 18,
 16 + 2 = 18
 Similarly,
 (133, 7, 21):- (133 ÷ 7) + 2 = 21,
 19 + 2 = 21

14.(d) Logic :-
 (Second number - First number) ÷ 2 = Third number
 (12, 40, 14):- (40 - 12) ÷ 2
 → (28) ÷ 2 = 14
 (15, 33, 9):- (33 - 15) ÷ 2
 → (18) ÷ 2 = 9
 Similarly,
 (21, 91, 35):- (91 - 21) ÷ 2
 → (70) ÷ 2 = 35

15.(a) Logic - (First number)² - 100 = Second number
 17:189:- (17)² - 100 → 289 - 100 = 189
 13:69:- (13)² - 100 → 169 - 100 = 69
 Similarly,
 18: ? :- (18)² - 100 → 324 - 100 = 224

16. (a) Logic - [(First number) ÷ Second number] × 3 = Third number
 (36, 6, 18):- (36 ÷ 6) × 3 → (6) × (3) = 18
 (35, 5, 21):- (35 ÷ 5) × 3 → (7) × (3) = 21
 Similarly,
 (49, 7, 21):- (49 ÷ 7) × 3 → (7) × (3) = 21

17.(a) Logic :-
 (First number - Second number) × 3 = Third number
 (54, 32, 66):- (54 - 32) × 3 → (22) × 3 = 66
 (49, 31, 54):- (49 - 31) × 3 → (18) × 3 = 54
 Similarly,
 (39, 18, 63):- (39 - 18) × 3 → (21) × 3 = 63

18.(b) Logic: (Second number + 1)² = First number
 121:10 → (10 + 1)² = 11² = 121
 256:15 → (15 + 1)² = 16² = 256
 441 : ? → (20 + 1)² = 21² = 441

19.(a) Logic: (First number - Second number) + 10 = Third Number
 (168, 35, 143) → (168 - 35) + 10 = 133 + 10 = 143
 (182, 65, 127) → (182 - 65) + 10 = 117 + 10 = 127
 Similarly,
 (142, 83, 69) → (142 - 83) + 10 = 59 + 10 = 69

20.(b) Logic:- (First number) × 3 = Second number
 7:21 :- (7) × 3 = 21
 14:42 :- (14) × 3 = 42
 Similarly,
 18: ? :- (18) × 3 = 54

21.(d) Logic:-
 (First number - Third number)² = Second number
 (13, 64, 5):- (13 - 5)² → (8)² = 64
 (10, 1, 9):- (10 - 9)² → (1)² = 1
 Similarly,
 (16, 49, 9):- (16 - 9)² → (7)² = 49

22.(b) Logic:- (First number ÷ 5) + (Second number ÷ 3) = Third number
 (15, 21, 10):- (15 ÷ 5) + (21 ÷ 3) → (3) + (7) = 10
 (25, 36, 17):- (25 ÷ 5) + (36 ÷ 3) → (5) + (12) = 17
 Similarly,
 (100, 33, 31):- (100 ÷ 5) + (33 ÷ 3) → (20) + (11) = 31

23.(b) Logic:- (Second number - First number) = 61
 (Third number - Second number) = 61
 (47, 108, 169):- (108 - 47) = 61,
 (169 - 108) = 61
 (22, 83, 144) :- (83 - 22) = 61,
 (144 - 83) = 61
 Similarly,
 (51, 112, 173) :- (112 - 51) = 61,
 (173 - 112) = 61

24.(a) Logic :- First number = (Second number)² × (Second number ÷ 3)
 (243 : 9):- 243 = (9)² × (9 ÷ 3),
 81 × 3 = 243
 (72 : 6) :- 72 = (6)² × (6 ÷ 3),
 36 × 2 = 72
 Similarly,
 (576: ?) :- 576 = (12)² × (12 ÷ 3),
 144 × 4 = 576

25.(d) Logic:- (First number $\times$ Second number) - (First number $\div$ Second number) = Third number
 (100, 2, 150):- (100 $\times$ 2) - (100 $\div$ 2) = 200 - 50 = 150
 (50, 5, 240):- (50 $\times$ 5) - (50 $\div$ 5) = 250 - 10 = 240
 Similarly,
 (16, 8, 126):- (16 $\times$ 8) - (16 $\div$ 8) = 128 - 2 = 126

26.(c) Logic :-
 (First number)³ - (Second number)³ = Third number
 (12, 7, 1385):- (12)³ - (7)³ $\rightarrow$ (1728) - (343) = 1385
 (19, 15, 3484):- (19)³ - (15)³ $\rightarrow$ (6859) - (3375) = 3484
 Similarly,
 (21, 16, 5165):- (21)³ - (16)³ $\rightarrow$ (9261 - 4096) = 5165

27.(b) Logic: (Second number)² - Third number = First number
 (192, 14, 4) $\rightarrow$ 14² - 4 = 196 - 4 = 192
 (524, 23, 5) $\rightarrow$ 23² - 5 = 529 - 5 = 524
 (2, 2, 2) $\rightarrow$ 2² - 2 = 4 - 2 = 2

28.(c) Logic: {(First number)² + (Second number)²} $\times$ 2 = Third Number
 (4, 5, 82) $\rightarrow$ (4² + 5²) $\times$ 2 = 41 $\times$ 2 = 82
 (6, 11, 314) $\rightarrow$ (6² + 11²) $\times$ 2 = 157 $\times$ 2 = 314
 Similarly,
 (11, 9, 560) $\rightarrow$ (11² + 9²) $\times$ 2 = 202 $\times$ 2 = 404 (not 560)

29.(d) Logic:
 {(First number)² - (Second number)²} - 8 = Third Number
 (7, 5, 16) $\rightarrow$ (7² - 5²) - 8 = 24 - 8 = 16
 (12, 10, 36) $\rightarrow$ (12² - 10²) - 8 = 44 - 8 = 36 Similarly,
 (8, 7, 7) $\rightarrow$ (8² - 7²) - 8 = 15 - 8 = 7

30.(c) Logic - (First number)² + (Second number)² = Third number
 (14, 10, 296):- (14)² + (10)² = 296
 $\rightarrow$ 196 + 100 = 296
 (8, 17, 353):- (8)² + (17)² = 353
 $\rightarrow$ 64 + 289 = 353 Similarly,
 (5, 13, 194):- (5)² + (13)² = 194
 $\rightarrow$ 25 + 169 = 194

31.(d) Logic :-
 {(First number)² - (Second number)²}

$\div$ 2 = Third number
 (12, 4, 64):- {(12)² - (4)²} $\div$ 2 = 64
 $\rightarrow$ (144 - 16) $\div$ 2 = 64 $\rightarrow$ 128 $\div$ 2 = 64
 $\rightarrow$ 64 = 64
 (8, 6, 14):- {(8)² - (6)²} $\div$ 2
 $\rightarrow$ (64 - 36) $\div$ 2 = 28 $\div$ 2 = 14
 $\rightarrow$ 14 = 14
 Similarly,
 (9, 5, 28):- {(9)² - (5)²} $\div$ 2
 $\rightarrow$ (81 - 25) $\div$ 2 = 56 $\div$ 2 = 28
 $\rightarrow$ 28 = 28

32.(a) Logic:- (First number + Third number) $\times$ 2 = Second number
 (14, 60, 16):- (14 + 16) $\times$ 2 = 60
 $\rightarrow$ 30 $\times$ 2 = 60
 (12, 40, 8):- (12 + 8) $\times$ 2 = 40
 $\rightarrow$ 20 $\times$ 2 = 40
 Similarly,
 (19, 80, 21):- (19 + 21) $\times$ 2 = 80
 $\rightarrow$ 40 $\times$ 2 = 80

33.(d) Logic:- (First number) $\times$ (second number) $\times$ 5 = Third number
 (15, 5, 375):- (15) $\times$ (5) $\times$ 5
 $\rightarrow$ (15) $\times$ (25) = 375
 (14, 3, 210):- (14) $\times$ (3) $\times$ 5
 $\rightarrow$ (14) $\times$ (15) = 210
 Similarly,
 (11, 16, 880):- (11) $\times$ (16) $\times$ 5
 $\rightarrow$ (11) $\times$ (80) = 880

34.(d) Logic - (First number)³ - (First number) $\times$ 3 = Second number
 9:702 :- (9)³ - (9) $\times$ 3 $\rightarrow$ 729 - 27 = 702
 3:18 :- (3)³ - (3) $\times$ 3 $\rightarrow$ 27 - 9 = 18
 Similarly,
 6: ? :- (6)³ - (6) $\times$ 3 $\rightarrow$ 216 - 18 = 198

35.(d) Logic:- (First number)² + (Second number)² + [(First number + Second number)] = Third number
 (6, 7, 98) :- (6)² + (7)² + [(6 + 7)]
 $\rightarrow$ (36 + 49) + [13] = 85 + 13 = 98
 (8, 10, 182):- (8)² + (10)² + [(8 + 10)]
 $\rightarrow$ (64 + 100) + [18] = 164 + 18 = 182
 Similarly,
 (4, 5, 50):- (4)² + (5)² + [(4 + 5)]
 $\rightarrow$ (16 + 25) + [9] = 41 + 9 = 50

36.(b) Logic: Second number $\times$

$$\frac{\text{Second number}}{2} = \text{First number}$$

$$32: 8 \rightarrow 8 \times \frac{8}{2} = 8 \times 4 = 32$$

$$72:12 \rightarrow 12 \times \frac{12}{2} = 12 \times 6 = 72$$

Similarly,

$$128 : ? \rightarrow 16 \times \frac{16}{2} = 16 \times 8 = 128$$

37.(d) Logic: (Second number)² ÷ 3 = First number

$$192:24 \rightarrow (24)^2 \div 3 \rightarrow 576 \div 3 = 192$$

$$48:12 \rightarrow (12)^2 \div 3 \rightarrow 144 \div 3 = 48$$

Similarly,

$$432: ? \rightarrow (36)^2 \div 3 \rightarrow 1296 \div 3 = 432$$

38.(a) Logic:- (Second number × Third number) = First number

$$(1000, 100, 10):- (100 \times 10) = 1000$$

$$(38, 19, 2):- (19 \times 2) = 38$$

Similarly,

$$(125, 25, 5):- (25 \times 5) = 125$$

39.(b) Logic:- (Second number) + (Third number) × 2 = First number

$$(300, 100, 100):- (100) + (100) \times 2 \rightarrow 100 + 200 = 300$$

$$(88, 66, 11):- (66) + (11) \times 2 \rightarrow$$

$$66 + 22 = 88$$

Similarly,

$$(44, 22, 11):- (22) + (11) \times 2 \rightarrow 22 + 22 = 44$$

40.(b) Logic:- (First number × 3) + Second number = Third number

$$(26, 62, 140):- (26 \times 3) + 62 \rightarrow 78$$

$$+ 62 = 140$$

$$(12, 39, 75):- (12 \times 3) + 39 \rightarrow 36$$

$$+ 39 = 75$$

Similarly,

$$(20, 48, 108):- (20 \times 3) + 48 \rightarrow 60 + 48 = 108$$

41.(b) Logic: (First number × 6) = Second number and (Second number × 2) = Third number

$$(5, 30, 60) \rightarrow 5 \times 6 = 30 \text{ and } 30 \times 2 = 60$$

$$(11, 66, 132) \rightarrow 11 \times 6 = 66 \text{ and } 66 \times 2 = 132 \text{ Similarly,}$$

$$(14, 84, 168) \rightarrow 14 \times 6 = 84 \text{ and } 84 \times 2 = 168$$

42.(c) Logic - (First number × Second number) × 4 = Third number

$$(5, 7, 140):- (5 \times 7) \times 4 \rightarrow 35 \times 4 = 140$$

$$(6, 4, 96) :- (6 \times 4) \times 4 \rightarrow 24 \times 4 = 96$$

Similarly,

$$(9, 2, 72):- (9 \times 2) \times 4 \rightarrow (18) \times 4 = 72$$

43.(b) Logic:- First number = (Second number × 2) + Third number

$$(34, 12, 10) \rightarrow 34 = (12 \times 2) + 10 \rightarrow 24 + 10 = 34$$

$$(56, 17, 22) \rightarrow 56 = (17 \times 2) + 22 \rightarrow 34 + 22 = 56$$

Similarly,

$$(46, 19, 8) \rightarrow 46 = (19 \times 2) + 8 \rightarrow 38 + 8 = 46$$

44.(c) Logic - (First number × 3) = Second number, (Second number) × 2 = Third number

$$(15, 45, 90):- (15 \times 3) = 45, (45 \times 2) = 90$$

$$(8, 24, 48):- (8 \times 3) = 24, (24 \times 2) = 48$$

Similarly,

$$(6, 18, 36):- (6 \times 3) = 18, (18 \times 2) = 36$$

45.(c) Logic:- (Square root of first number) × (Square root of second number) = Third number

$$(4, 1024, 64):- (\sqrt{4}) \times (\sqrt{1024}) \rightarrow 2 \times 32 = 64$$

$$(225, 81, 135):- (\sqrt{225}) \times (\sqrt{81}) \rightarrow 15 \times 9 = 135$$

Similarly,

$$(49, 841, 203):- (\sqrt{49}) \times (\sqrt{841}) \rightarrow 7 \times 29 = 203$$

46.(b) Logic :- (First number ÷ 4)² - (Second number ÷ 6)² = Third number

$$(36, 24, 65):- (36 \div 4)^2 - (24 \div 6)^2 \rightarrow (9 - 4) = 5$$

$$(40, 54, 19):- (40 \div 4)^2 - (54 \div 6)^2 \rightarrow (100 - 81) = 19 \text{ Similarly,}$$

$$(20, 18, 16):- (20 \div 4)^2 - (18 \div 6)^2 \rightarrow (25 - 9) = 16$$

$$(25-9) = 16$$

- 47.(d) Logic :- (First number - Second number) = 41; (Second number - Third number) = 41

$$(189, 148, 107):- (189-148) = 41,$$

$$(148-107) = 41$$

$$(206, 165, 124):- (206-165) = 41,$$

$$(165-124) = 41$$

Similarly,

$$(108, 67, 26):- (108 - 67) = 41,$$

$$(67 - 26) = 41$$

- 48.(d) Logic:- (First number $\div$ 11) - (Second number $\div$ 9) = Third number

$$(121, 81, 2) \rightarrow (121 \div 11) - (81 \div 9)$$

$$\rightarrow (11) - (9) = 2$$

$$(88, 54, 2) \rightarrow (88 \div 11) - (54 \div 9)$$

$$\rightarrow (8) - (6) = 2$$

$$(77, 18, 5) \rightarrow (77 \div 11) - (18 \div 9)$$

$$\rightarrow (7) - (2) = 5$$

- 49.(b) Logic :- $\frac{\text{First number} + \text{Third number}}{2} =$
Second number

$$(71, 114, 157) = \frac{71 + 157}{2} = \frac{228}{2} = 114$$

$$(36, 79, 122) = \frac{36 + 122}{2} = \frac{158}{2} = 79$$

Similarly,

$$(25, 68, 111) = \frac{25 + 111}{2} = \frac{136}{2} = 68$$

- 50.(b) Logic :- [(Third number - Second number) $\times$ 2] $\div$ (First number) = 200

$$(4, 14, 828) - [(828) - (14) \times 2] \div 4 \rightarrow$$

$$(800) \div 4 = 200$$

$$(3, 10, 620) - [(620) - (10) \times 2] \div 3 \rightarrow$$

$$(600) \div 3 = 200$$

Similarly,

$$(2, 50, 500) - [(500) - (50) \times 2] \div 2 \rightarrow$$

$$(400) \div 2 = 200$$

- 51.(b) Logic :- (Second number $\div$ First number) + (First number) = Third number

$$(4, 16, 8) :- (16 \div 4) + (4) = (4) + (4)$$

$$= 8$$

$$(2, 14, 9) :- (14 \div 2) + (2) = (7) + (2)$$

$$= 9$$

$$(2, 8, 6) :- (8 \div 2) + (2) = (4) + (2)$$

$$= 6$$

- 52.(d) Logic :- (Second number + Third number $\div$ 2 = First number

$$(6, 4, 8):- (4+8) \div 2 \rightarrow (12) \div 2 = 6$$

$$(17, 6, 28):- (6 + 28) \div 2 \rightarrow (34) \div 2 = 17$$

Similarly,

$$(13, 5, 21):- (5+21) \div 2 \rightarrow (26) \div 2 = 13$$

- 53.(d) Logic - (First number + Third number) $\times$ 5 = Second number

$$(7, 150, 23):- (7 + 23) \times 5 \rightarrow (30) \times 5$$

$$= 150$$

$$(11, 75, 4):- (11+4) \times 5 \rightarrow (15) \times 5 =$$

$$75$$

Similarly,

$$(15, 140, 13):- (15+13) \times 5 \rightarrow (28) \times$$

$$5 = 140$$

- 54.(b) Logic - (Third number - Second number) $\div$ 7 = (First number)

$$(28, 65, 261):- (261 - 65) \div 7 \rightarrow 196 \div$$

$$7 = 28$$

$$(37, 83, 342) :- (342 - 83) \div 7 \rightarrow 259 \div$$

$$7 = 37$$

Similarly,

$$(46, 92, 414) :- (414 - 92) \div 7 \rightarrow (322$$

$$\div 7) = 46$$

- 55.(d) Logic :- (First number + Third number) $\div$ 2 = Second number

$$(15, 28, 41):- (15+41) \div 2 = 56 \div 2 =$$

$$28$$

$$(19, 32, 45) :- (19+45) \div 2 = 64 \div 2 =$$

$$32$$

Similarly,

$$(22, 35, 48):- (22 + 48) \div 2 = (70) \div 2$$

$$= 35$$

- 56.(d) Logic :- (First number + Third number) $\div$ 2 = Second number

$$(9, 20, 31):- (9+31) \div 2 = (40) \div 2 = 20$$

$$(38, 49, 60) :- (38 + 60) \div 2 = (98) \div 2$$

$$= 49$$

Similarly,

$$(14, 24, 34) :- (14+34) \div 2 = (48) \div 2$$

$$= 24$$

- 57.(d) Logic :- (First number + Second number) $\times$ 3 = Third number

$$(2, 7, 27)- (2 + 7) \times 3 \rightarrow (9) \times 3 = 27$$

$$(6, 15, 63):- (6+15) \times 3 \rightarrow (21) \times 3$$

= 63

Similarly,

$$(8, 8, 48):- (8+8) \times 3 \rightarrow (16) \times 3 = 48$$

- 58.(c) Logic :- (First number $\times$ Third number) $\times 2$ = Second number
 $(25, 150, 3):- (25 \times 3) \times 2 = (75) \times 2$
 $= 150$
 $(18, 180, 5):- (18 \times 5) \times 2 = (90) \times 2$
 $= 180$
 Similarly,
 $(52, 728, 7) :- (52 \times 7) \times 2 = (364) \times 2$
 $= 728$

- 59.(a) Logic: (First number $\times$ Second number) + (First number $\div$ Second number) = Third number
 $(10, 5, 52) \rightarrow (10 \times 5) + (10 \div 5)$
 $\rightarrow 50 + 2 = 52$
 $(35, 7, 250) \rightarrow (35 \times 7) + (35 \div 7)$
 $\rightarrow 245 + 5 = 250$
 Similarly,
 $(8, 4, 34) \rightarrow (8 \times 4) + (8 \div 4)$
 $\rightarrow 32 + 2 = 34$

- 60.(c) Logic: $(2 \times \text{first number}) + \text{second number} = \text{Third number}$
 $(12, 5, 29) \rightarrow (2 \times 12) + 5 \rightarrow 24 + 5 = 29$
 $(19, 12, 50) \rightarrow (2 \times 19) + 12 \rightarrow 38 + 12 = 50$
 Similarly,
 $(15, 14, 44) \rightarrow (2 \times 15) + 14 \rightarrow 30 + 14 = 44$

- 61.(d) Logic: (Third number $\div$ First = Second number)
 $(4, 14, 56) \rightarrow 56 \div 4 = 14$
 $(6, 15, 90) \rightarrow 90 \div 6 = 15$
 Similarly,
 $(7, 16, 112) \rightarrow 112 \div 7 = 16$

- 62.(a) Logic:- (First number + Second number) + 3 = Third number
 $(47, 11, 61):- (47 + 11) + 3 \rightarrow 58 + 3 = 61$
 $(13, 68, 84):- (13 + 68) + 3 \rightarrow 81 + 3 = 84$
 Similarly,
 $(52, 88, 143):- (52 + 88) + 3 \rightarrow 140 + 3 = 143$

- 63.(d) Logic:-
 (First number + Second number) $\div 2$ = Third number
 $(7, 15, 11) \rightarrow (7 + 15) \div 2 \rightarrow 22 \div 2$

= 11

$$(9, 19, 14) \rightarrow (9 + 19) \div 2 \rightarrow 28 \div 2$$

= 14

Similarly,

$$(11, 23, 17) \rightarrow (11 + 23) \div 2 \rightarrow 34 \div 2 = 17$$

- 64.(b) Logic :- (First number)² + (Second number)² = Third number
 $(2, 9, 85) :- (2)^2 + (9)^2 \rightarrow 4 + 81 = 85$
 $(3, 9, 90):- (3)^2 + (9)^2 \rightarrow 9 + 81 = 90$
 Similarly,
 $(7, 9, 130):- (7)^2 + (9)^2 \rightarrow 49 + 81 = 130$

- 65.(a) Logic: (First number + Third number)² = Second number
 $(4, 81, 5) \rightarrow (4 + 5)^2 = 9^2 = 81$
 $(3, 144, 9) \rightarrow (3 + 9)^2 = 12^2 = 144$
 Similarly,
 $(2, 100, 8) \rightarrow (2 + 8)^2 = 10^2 = 100$

- 66.(a) Logic:- First number = Second number $\times$ Third number $\div 10$
 $(60, 15, 40):- 60 = (15 \times 40) \div 10$
 $\rightarrow 600 \div 10 = 60$
 $(100, 50, 20):- 100 = (50 \times 20) \div 10$
 $\rightarrow 1000 \div 10 = 100$
 Similarly,
 $(200, 40, 50):- 200 = (40 \times 50) \div 10$
 $\rightarrow 2000 \div 10 = 200$

- 67.(b) Logic:- (Second number - First number) = (Third number - Second number) = 8
 $(15, 23, 31):- (23 - 15) = 8, (31 - 23) = 8$
 $(33, 41, 49):- (41 - 33) = 8, (49 - 41) = 8$
 Similarly,
 $(20, 28, 36):- (28 - 20) = 8, (36 - 28) = 8$

- 68.(a) Logic :- (First number + Third number) = (Second number) $\times 2 + 2$
 $(17, 26, 37):- (17 + 37) = (26 \times 2) + 2$
 $\rightarrow (52) + 2 = 54$
 $(170, 197, 226):- (170 + 226)$
 $= (197 \times 2) + 2 \rightarrow (394) + 2 = 396$
 Similarly,
 $(48, 63, 80):- (48 + 80) = (63 \times 2) + 2$
 $\rightarrow (126) + 2 = 128$

- 69.(b) Logic:- (First number + 1)² + 1 = Second number
 $(7, 65):- (7 + 1)^2 + 1 \rightarrow 64 + 1 = 65$
 $(11, 145):- (11 + 1)^2 + 1 \rightarrow 144 + 1 = 145$

Similarly,

(8, 82) :- $(8 + 1)^2 + 1 \rightarrow 81 + 1 = 82$
 70.(b) Logic :- (First number $\div$ Second number)
 $= \frac{3}{5}$

(39, 65) :- $(39 \div 65) = \frac{3}{5}$

(63, 105) :- $(63 \div 105) = \frac{3}{5}$

Similarly,

(96, 160) :- $(96 \div 160) = \frac{3}{5}$

71.(c) Logic: (First number $\times$ Second number $\times 3$) = Third number
 (3, 6, 54) $\rightarrow 3 \times 6 \times 3 = 54$
 (4, 2, 24) $\rightarrow 4 \times 2 \times 3 = 24$
 Similarly,
 (3, 4, 36) $\rightarrow 3 \times 4 \times 3 = 36$

72.(b) Logic :- (Second number - First number) = 4 (Third number - Second number) = 6
 (13, 17, 23) :- $(17 - 13) = 4$, $(23 - 17) = 6$
 (8, 12, 18) :- $(12 - 8) = 4$, $(18 - 12) = 6$
 Similarly,
 (18, 22, 28) :- $(22 - 18) = 4$, $(28 - 22) = 6$

73.(a) Logic - (First number - Second number) $\times 3$ = (Third number - Second number)
 (12, 8, 20) $\rightarrow (12 - 8) \times 3 = (20 - 8) \rightarrow 12$
 (7, 3, 15) $\rightarrow (7 - 3) \times 3 = (15 - 3) \rightarrow 12$
 Similarly,
 (9, 4, 19) $\rightarrow (9 - 4) \times 3 = (19 - 4) \rightarrow 15$

74.(c) Logic - (First number - Second number) + 100 = Third number
 (239, 127, 212) :- $(239 - 127) + 100 \rightarrow 112 + 100 = 212$
 (96, 64, 132) :- $(96 - 64) + 100 \rightarrow 32 + 100 = 132$
 Similarly,
 (167, 89, 178) :- $(167 - 89) + 100 \rightarrow 78 + 100 = 178$

75.(d) Logic :- All the numbers are perfect cubes.
 (8, 27, 125) $\rightarrow (2^3, 3^3, 5^3)$

(64, 1331, 1728) $\rightarrow (4^3, 11^3, 12^3)$
 Similarly,
 (216, 343, 512) $\rightarrow (6^3, 7^3, 8^3)$

76.(a) Logic :- (First number + 6) = Second number, (Second number + 6) = Third number
 (14, 20, 26) $\rightarrow (14 + 6) = 20$, $(20 + 6) = 26$
 (22, 28, 34) $\rightarrow (22 + 6) = 28$, $(28 + 6) = 34$
 Similarly,
 (32, 38, 44) $\rightarrow (32 + 6) = 38$, $(38 + 6) = 44$

77.(c) Logic :- (First number $\times$ Third number) = Second number
 (12, 60, 5) :- $(12) \times (5) = 60$
 (14, 56, 4) :- $(14) \times (4) = 56$
 Similarly,
 (10, 100, 10) :- $(10 \times 10) = 100$

78.(c) Logic :- (First number + Second number) $\div 2$ = Third number
 (100, 150, 125) :- $(100 + 150) \div 2 = (250) \div 2 = 125$
 (500, 400, 450) :- $(500 + 400) \div 2 = (900) \div 2 = 450$
 Similarly,
 (200, 400, 300) :- $(200 + 400) \div 2 = (600) \div 2 = 300$

79.(a) Logic :- (First number + Third number)² = (Second number)²
 (4, 64, 4) :- $(4 + 4)^2 = (8)^2 = 64$
 (5, 100, 5) :- $(5 + 5)^2 = (10)^2 = 100$
 Similarly,
 (8, 256, 8) :- $(8 + 8)^2 = (16)^2 = 256$

80.(d) Logic - (First number + Second number)² = Third number
 (4, 3, 49) :- $(4 + 3)^2 = 49$
 (5, 4, 81) :- $(5 + 4)^2 = 81$
 Similarly,
 (6, 5, 121) :- $(6 + 5)^2 = 121$

81.(d) Logic :- (First number) $\times 5$ = Second number, (Second number) $\times 5$ = Third number
 (10, 50, 250) :- $(10) \times 5 = 50$, $(50) \times 5 = 250$
 (20, 100, 500) :- $(20) \times 5 = 100$, $(100) \times 5 = 500$
 Similarly,
 (8, 40, 200) :- $(8) \times 5 = 40$, $(40) \times 5 = 200$

82.(b) Logic - (Second number + Third number)² = (First number)
 (144, 8, 4):- (8+4)² = (12)² = 144
 (256, 12, 4):- (12+4)² = (16)² = 256
 Similarly,
 (400, 16, 4):- (16+4)² = (20)² = 400

83.(b) Logic - (Third number) × 3 = (Second number), (Second number) × 3 = First number
 (243, 81, 27):- (27) × 3 = 81, (81) × 3 = 243
 (99, 33, 11):- (11) × 3 = 33, (33) × 3 = 99
 Similarly,
 (27, 9, 3):- (3) × 3 = 9, (9) × 3 = 27

84.(d) Logic - (First number)² = (Second number), (First number)³ = Third number
 (7, 49, 343) :- (7)² = 49, (7)³ = 343
 (8, 64, 512):- (8)² = 64, (8)³ = 512
 Similarly,
 (9, 81, 729):- (9)² = 81, (9)³ = 729

85.(b) Logic :- (First number) × 3 = Second number, (Second number) × 3 = (Third number)
 (10, 30, 90):- (10) × 3 = 30, (30) × 3 = 90
 (20, 60, 180):- (20) × 3 = 60, (60) × 3 = 180
 Similarly,
 (30, 90, 270):- (30) × 3 = 90, (90) × 3 = 270

86.(b) Logic :- Second number = (First number × 2) + 1, Third number = (Second number × 2) + 2
 (17, 35, 72):- 35 = (17 × 2) + 1, 72 = (35 × 2) + 2
 (13, 27, 56):- 27 = (13 × 2) + 1, 56 = (27 × 2) + 2
 Similarly,
 (15, 31, 64):- 31 = (15 × 2) + 1, 64 = (31 × 2) + 2

87.(a) Logic - [(1st number) × (2nd number)] × 3 = (3rd number)
 (4, 6, 72):- (4 × 6) × 3 = (24) × 3 = 72
 (5, 7, 105):- (5 × 7) × 3 = (35) × 3 = 105
 Similarly,
 (6, 8, 144):- (6 × 8) × 3 = (48) × 3 = 144

88.(a) Logic :- (First number) × 2 - 1 = (Second number), (Second number) × 2 - 2 = (Third number)
 (19, 37, 72):- (19) × 2 - 1 = 37, (37) × 2 - 2 = 72

(15, 29, 56):- (15) × 2 - 1 = 29, (29) × 2 - 2 = 56
 Similarly,
 (11, 21, 40):- (11) × 2 - 1 = 21, (21) × 2 - 2 = 40

89.(c) Logic :- (First number) × 2 + 2 = (Second number), (Second number) × 2 + 2 = (Third number)
 (13, 28, 58):- (13) × 2 + 2 = 28, (28) × 2 + 2 = 58
 (16, 34, 70):- (16) × 2 + 2 = 34, (34) × 2 + 2 = 70
 Similarly,
 (11, 24, 50):- (11) × 2 + 2 = 24, (24) × 2 + 2 = 50

90.(a) Logic :- Second number = First number + 50, Third number = Second number + 50
 (20, 70, 120):- 70 = 20 + 50, 120 = 70 + 50
 (120, 170, 220):- 170 = 120 + 50, 220 = 170 + 50
 Similarly,
 (420, 470, 520):- 470 = 420 + 50, 520 = 470 + 50

91.(b) Logic :- (Set of prime numbers)
 → (2, 3, 5), (5, 7, 11)
 Similarly,
 (11, 13, 17)

92.(c) Logic :- 3rd number = (1st number + 2nd number)²
 (4, 1, 25) → (4+1)² = (5)² = 25
 (8, 5, 169) → (8+5)² = (13)² = 169
 Similarly,
 (5, 9, 196) → (5+9)² = (14)² = 196

93.(b) Logic: - [(Sum of the digits of first number) × 11 = Second number, [Add the reverse of second number with the second number itself] = Third number
 i.e. (56, 121, 242) = [56, (5+6) × 11, 121 + 121 = 242]
 (78, 165, 726) = [78, (7+8) × 11, 165 + 561 = 726]
 (36, 99, 198) = [36, (6+3) × 11, 99 + 99 = 198]

94.(c) Logic : Gap of one prime number between two prime numbers.
 (79, 89, 101) → (79, 83, 89),

→ (89, 97, 101)
 (31, 41, 47) → (31, 37, 41),
 → (41, 43, 47)
 Similarly,
 (29, 37, 43) → (29, 31, 37),
 → (37, 41, 43)

95.(c) Logic: $(a-3) \times 3 = b$ and $b + 7 = c$
 Here,
 (30, 99, 106):- $(36-3) \times 3 = 99$, $99 + 7 = 106$
 (72, 207, 214):- $(72-3) \times 3 = 207$,
 $207 + 7 = 214$
 Similarly,
 (24, 63, 70):- $(24-3) \times 3 = 63$, $63 + 7 = 70$

96.(d) Logic: - (Third number - Second number) = First number
 (136, 48, 184) → $(184 - 48) = 136$
 (189, 37, 226) → $(226 - 37) = 189$
 Similarly,
 (116, 62, 178) → $(178 - 62) = 116$

97.(a) Logic - (Second number $\times 2$) = First number, (Second number $\times 4$) = Third number
 (18, 9, 36) → $(9 \times 2) = 18$, $(9 \times 4) = 36$
 (36, 18, 72) → $(18 \times 2) = 36$, $(18 \times 4) = 72$
 Similarly,
 (32, 16, 64) → $(16 \times 2) = 32$, $(16 \times 4) = 64$

98.(c) Logic: (first number $\times 2$) = second number, Second number + 3 = third number
 Here,
 (39, 78, 81):- $39 \times 2 = 78$, $78 + 3 = 81$
 (42, 84, 87):- $42 \times 2 = 84$, $84 + 3 = 87$
 Similarly,
 (84, 168, 171):- $84 \times 2 = 168$, $168 + 3 = 171$

99.(d) Logic: - (First number $\times 2$) = Second number, (Second number $\times 2$) = Third number
 (59, 118, 236) → $(59 \times 2) = 118$
 $(118 \times 2) = 236$,
 (64, 128, 256) → $(64 \times 2) = 128$,
 $(128 \times 2) = 256$
 Similarly,

(82, 164, 328) → $(82 \times 2) = 164$, $(164 \times 2) = 328$

100.(c) Logic:- (First number $\times 4 - 3$) = Second number (Second number $\times 4 + 3$) = Third number

Here,
 (18, 69, 279) → $(18 \times 4 - 3) = 69$ $(69 \times 4 + 3) = 279$
 (12, 45, 183) → $(12 \times 4 - 3) = 45$ $(45 \times 4 + 3) = 183$
 Similarly,
 (32, 125, 503) → $(32 \times 4 - 3) = 125$
 $(125 \times 4 + 3) = 503$