

Hints and Solutions

1. In all others, the inner design and the outer design are same and outer line is omitted.
2. All others are made by lines.
3. In all others, the inner design in the figure is same.
4. In all others, the number of the inner black circles is less than the outer black circle.
5. In all others, the straight lines are one less than the inclined lines.
6. In all others, two same designs are in different pose.
7. In all others, the inner design is the reverse design of the outer design.
8. In all others, two designs are same.
9. In all others, the inner and outer designs are different.
31. The design is moving 90° in clockwise direction and the design is formed by one line adding.
32. In the following figure, one diameter on line is lessing.
33. In the design, the sign 'o' is moving 90° in anti-clockwise direction and the sign 'x' is moving 90° in clockwise direction.
34. Problem figure 3 is same as problem figure 1. Thus, the answer figure will be the same as problem figure 2.
35. The figure is moving 180° .
36. In the following figure, one line is eliminated.
37. In the following figure, one design is increasing.
38. Inner design is coming on outer and in this, a new design is forming.
39. In the following figure, one line is increasing.
40. In the following figure, one 'x' sign is decreasing from the midst. One 'x' sign is increasing and coming outside of the design.
41. The following figure is forming by rotating 180° .
42. The following figure is forming by rotate 90° .
43. The design is moving 180° in anti-clockwise direction and joined.
44. The figure is moving 180° and the outside line comes inside.
45. The design is moving 180° in clockwise direction.
46. The inner designs come outside and the outer design comes inside.
47. The design is moving 180° in clockwise direction and the middle part becomes short and short design becomes tall.
48. The inner design remains same and the circle change in rectangle.
49. The inner design is moving 180° in anti-clockwise direction.
50. Problem figure 3 is same as problem figure 1. Thus, the answer figure will be same as problem figure 2.
61. 70070
62. 1032
63. The sum of two numbers = 11009
One number = 9999
 \therefore Other number = $11009 - 9999 = 1010$
64. 14001
65. $6 \div 6 + 6 \times 6 - 6 = 1 + 6 \times 6 - 6$
 $= 1 + 36 - 6$
 $= 37 - 6 = 31$
66. $\frac{4}{3} + \frac{5}{9} + \frac{6}{18} = \frac{6 \times 4 + 2 \times 5 + 1 \times 6}{18}$
 $= \frac{24 + 10 + 6}{18}$
 $= \frac{40}{18} = \frac{20}{9}$
67.

2	8, 12, 20, 36
2	4, 6, 10, 18
3	2, 3, 5, 9
	2, 1, 5, 3

LCM = $2 \times 2 \times 3 \times 2 \times 5 \times 3 = 360$
68. 1
69. $5.125 = \frac{5125}{1000} = \frac{4.1}{8} = 5\frac{1}{8}$
70. $\therefore 10 \text{ km} = 10 \times 1000 \text{ m} = 10000 \text{ m}$
Let x% of 10 km = 10 m
 $\therefore \frac{x}{100} \times 10000 \text{ m} = 10 \text{ m}$
 $x = \frac{10 \times 100}{10000} = \frac{1}{10} \text{ or } 0.1\%$
71. 28, 56, 59 (In each row of numbers, first number is doubled and then 3 is added to it and the first number of the next row is 1 more than the first number of the preceeding row)

72. \therefore CP of radio = ₹ 900

SP of radio = ₹ 1200

\therefore Profit = 1200 - 900 = ₹ 300

Hence, the profit = $\frac{\text{Profit} \times 100}{\text{CP}}$
 $= \frac{300 \times 100}{900} = \frac{100}{3} = 33\frac{1}{3}\%$

73. $\therefore 20.2 \times 18.01 = \frac{202}{10} \times \frac{1801}{100}$
 $= \frac{363802}{1000} = 363.802$

\therefore The complete number without decimal is
 = 364

74. The LCM of 4, 5 and 6 = 60

Hence, after 60 min i.e., after 1 h.

They will ring together i.e., at 9 : 30 am

75. Given, $P = ₹ 500$; $A = ₹ 600$; $r = 5\%$

SI = Amount - Principal

= ₹ (600 - 500) = ₹ 100

Time, $t = \frac{\text{SI} \times 100}{P \times r}$

= $\frac{100 \times 100}{500 \times 5} = 4 \text{ yr}$

76. The area of rectangular field = 120×160
 = 19200 sq m

The area of one rectangular plot

= $40 \times 60 = 2400 \text{ sqm}$

\therefore Number of rectangular plots = $\frac{19200}{2400} = 8$

77. The boy slept at = 4 : 45 pm

The boy woke up at = 5 : 30 am (next morning)

Time taken in sleeping from 9 : 45 to 2 : 00 (midnight)

= 2 h 15 min

Time taken in sleeping from 12 : 00 to 5 : 30

= 5 h 30 min

Total time he slept for

= 2 h 15 min + 5 h 30 min

= 7 h 45 min

78. \therefore The average of four numbers = 30

\therefore Total of our numbers = $30 \times 4 = 120$

Sum of first three numbers = 85

\therefore Fourth number = $(120 - 85) = 35$

79. \therefore Monday is on 1st April

Monday will be on 8 April and 15 April

\therefore On 16th April it is Tuesday

On 17th April it is Wednesday and 18th April it will be Thursday.

80. \therefore Section B (30 enrolments) has half the enrolment of Section E (60 enrolments).