CHAPTER

05

ANALOGY

Analogy refers to 'correspondence' or similarity. It is also known as relationship test. In this type, the question figure consists of two sets. Each set has two frames separated by the sign of colon (:). The second set is separated by the sign of (::) from first set. The figures in the first set bear a certain relationship with each other. You have to choose, from the set of answer figures one figure bearing the same relationship to the third figure as there is in the first part of two figures.

Students, while solving these questions must kept following points in mind.

- Look carefully the shape of designs.
- Look carefully the side of designs.
- Analyse the rotation of designs.
- Look carefully the addition/deletion of designs.
- Look the mirror image of designs.
- Look the replacement and rearrangement of designs.

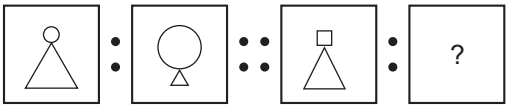
In this chapter, the changes between figures are based on following

- Based on size
- Based on position change
- Based on number of side
- Based on rotation

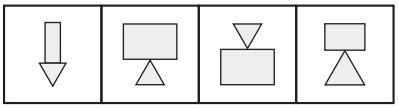
Type I Based on Size

In this type, larger design becomes smaller and smaller design becomes larger.

Example **1. Question Figures**



Answer Figures



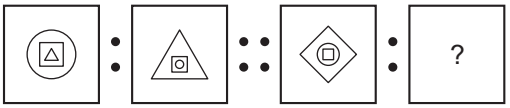
(1) (2) (3) (4)

Sol. (2) From question figure (1) to (2) bottom large design becomes small and upper small design becomes large. Similar rule will follow from the question figure (3) to answer figure (2).

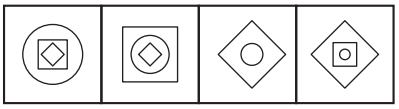
Type II Based on Position Change

In this type, the shapes change their positions with each other.

Example **2. Question Figures**



Answer Figures



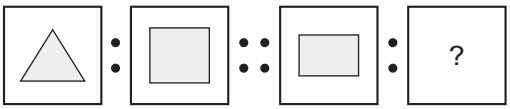
(1) (2) (3) (4)

Sol. (1) From question figure first to second, the innermost shape becomes outermost and the outermost shape becomes innermost. The middle figure has no change. Hence, following the same pattern answer figure (2) will complete the second pair.

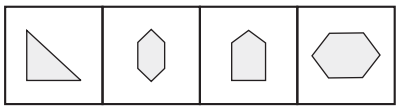
Type III Based on Number of Sides

In this type, the number of sides of geometrical figure increases or decreases.

Example **3. Question Figures**



Answer Figures

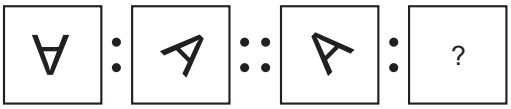


Sol. (3) From question figure (1) to (2), triangle becomes square one i.e. one side increases. Similar, rule will follow from question figure (3) to answer figure (3).

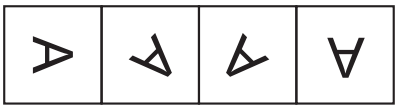
Type IV Based on Rotation

In this type, designs rotate through a certain angle either in clockwise direction or in anti-clockwise direction.

Example **4. Question Figures**



Answer Figures

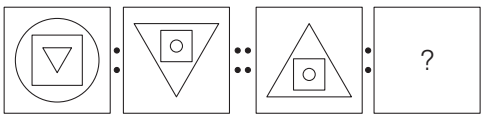


Sol. (4) From question figure (1) to (2), whole design rotates 135° in anti-clockwise direction. Similar rule will follow from question figure (3) to answer figure (4).

Entrance Corner

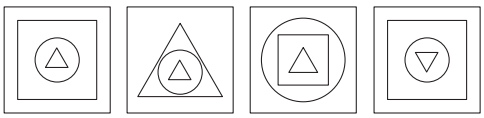
Directions (Q. Nos. 1-34) *In the following questions, the first two figures in the question figures are related to each other in same way. The same relationship holds between the third figure of the question figure and one of the answer figures* 1, 2, 3 *and* 4. *Identify the figure, which can replace the question mark(?).*

1. Question Figures

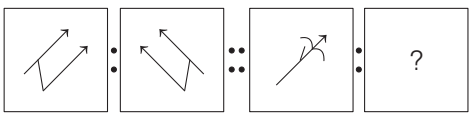


[JNV 2019]

Answer Figures

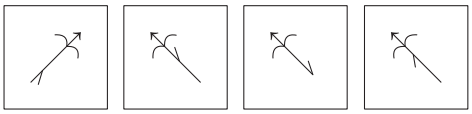


2. Question Figures



[JNV 2019]

Answer Figures



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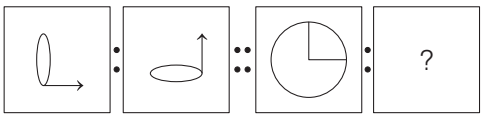
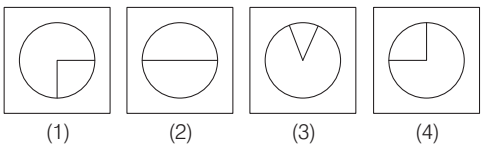


[JNV 2019]

Answer Figures



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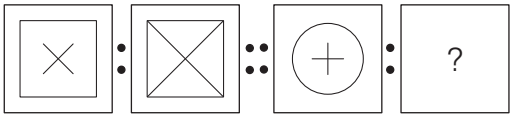

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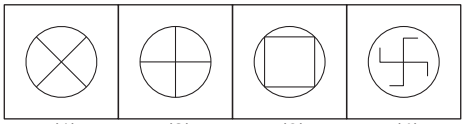

(1) (2) (3) (4)

[JNV 2019]

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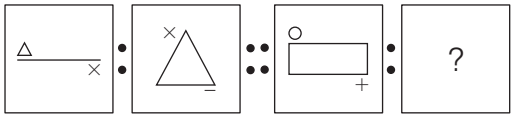

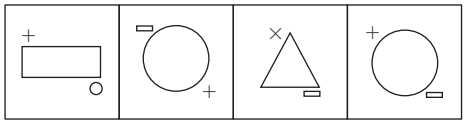

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[JNV 2018]

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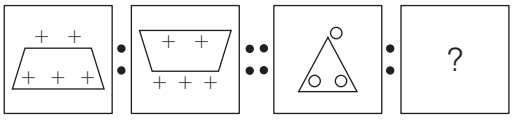

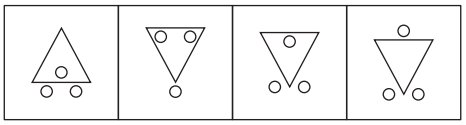

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[JNV 2018]

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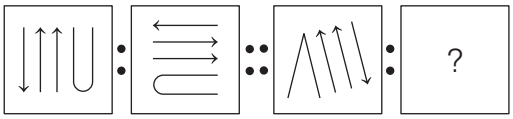

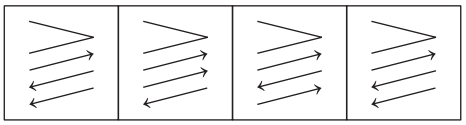

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[JNV 2018]

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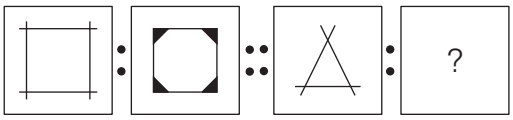

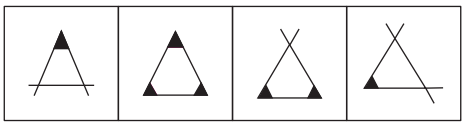

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[JNV 2018]

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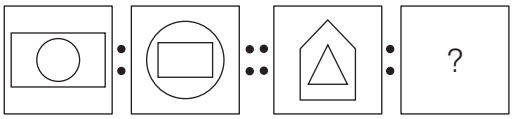

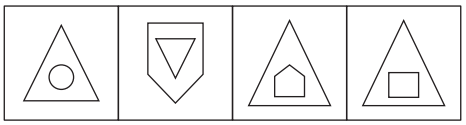

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[JNV 2018]

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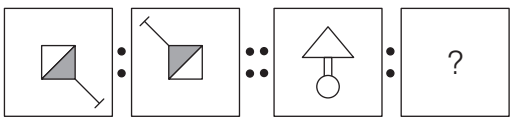

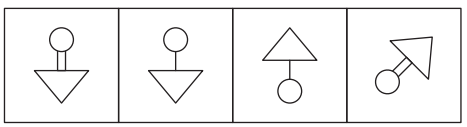

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[JNV 2017]

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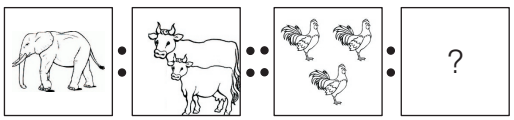

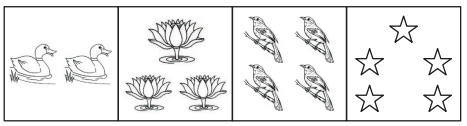

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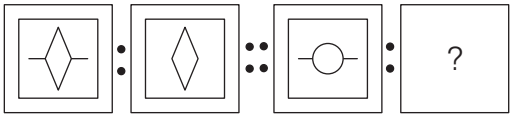
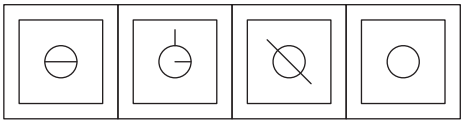
[JNV 2017]

12. **Questions Figures** **Answer Figures**

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[JNV 2017]

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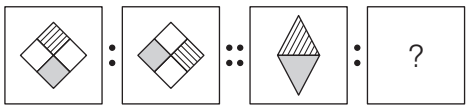
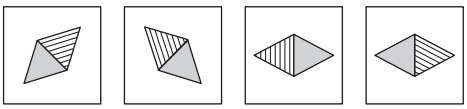

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[JNV 2016]

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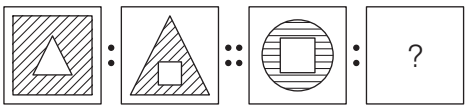
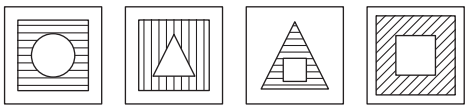

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[JNV 2016]

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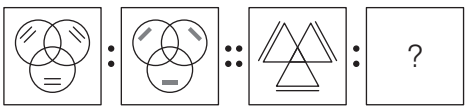
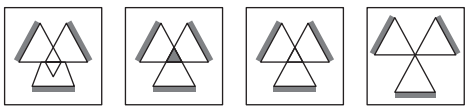

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[JNV 2016]

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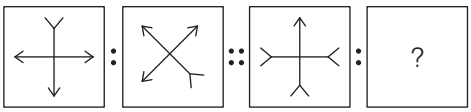
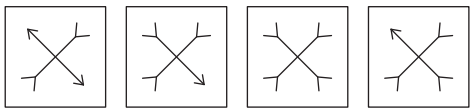

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[JNV 2015]

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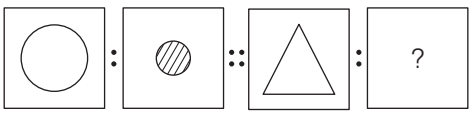
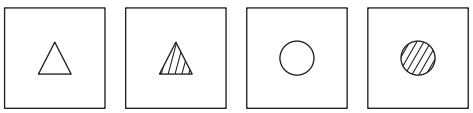

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[JNV 2015]

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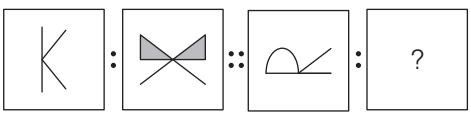
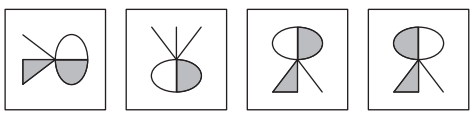

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[JNV 2015]

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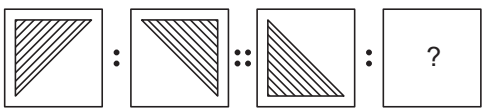
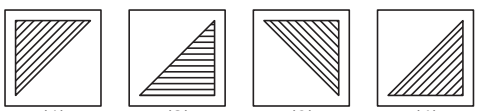
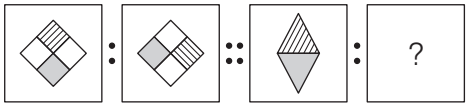



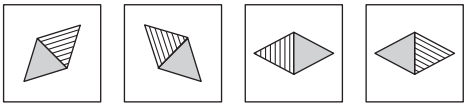
(1) (2) (3) (4)

[JNV 2014]

13. **Problem Figures**



Answer Figures



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[JNV 2016]

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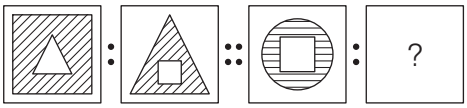

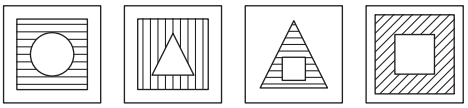

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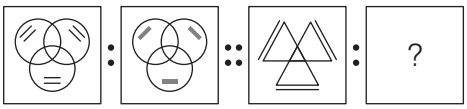
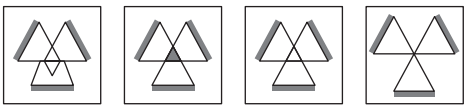
[JNV 2016]

15.





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[JNV 2016]

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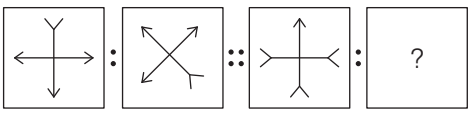
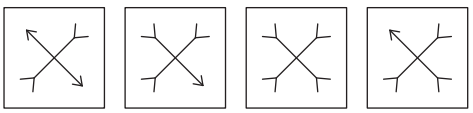
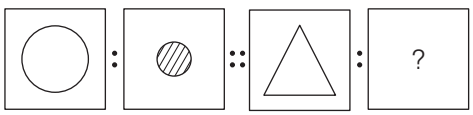


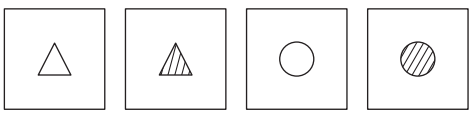


(1) (2) (3) (4)

[JNV 2015]

17.





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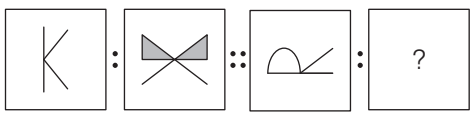
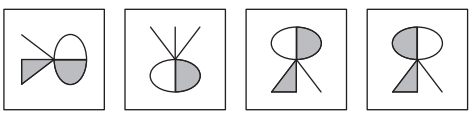
[JNV 2015]

18.





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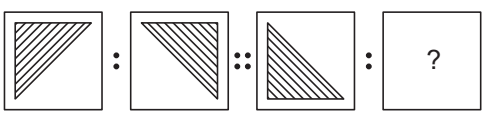
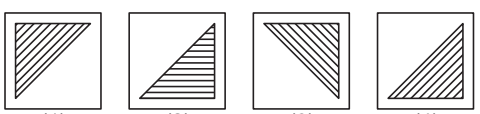
[JNV 2015]

19.





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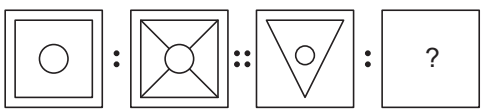
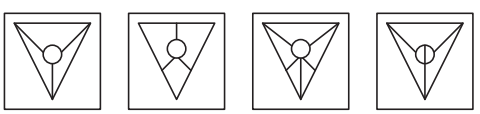
[JNV 2014]

20.





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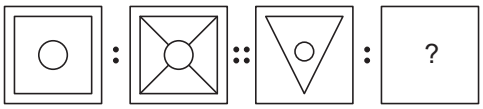
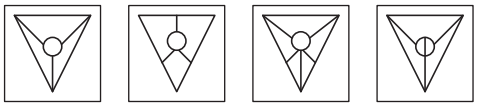
[JNV 2014]

20. **Questions Figures** **Answer Figures**

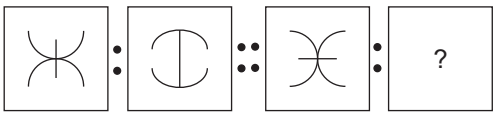


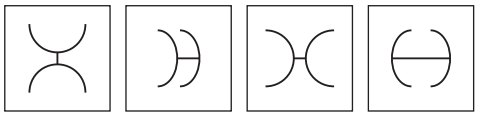


(1) (2) (3) (4)

[JNV 2014]

21.





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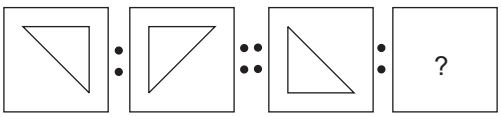
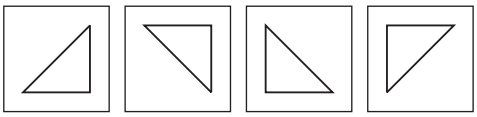
[JNV 2013]

22.

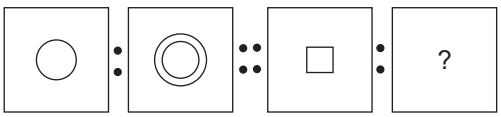


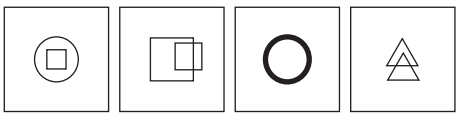


(1) (2) (3) (4)

[JNV 2013]

23.

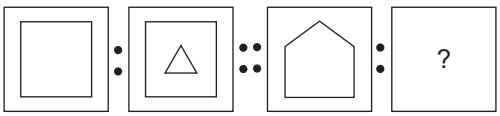


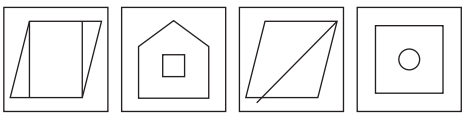


(1) (2) (3) (4)

[JNV 2012]

24.

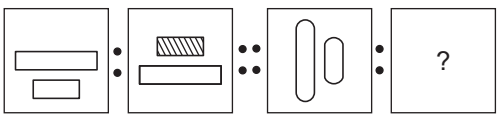


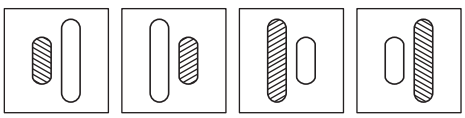


(1) (2) (3) (4)

[JNV 2011]

25.





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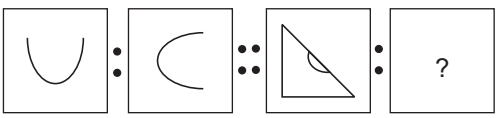
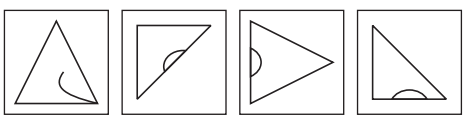
[JNV 2010]

26.

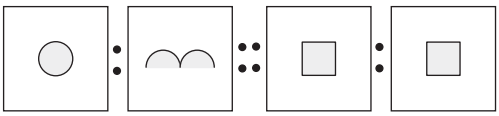


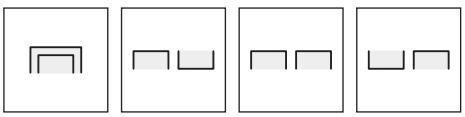


(1) (2) (3) (4)

[JNV 2009]

27.

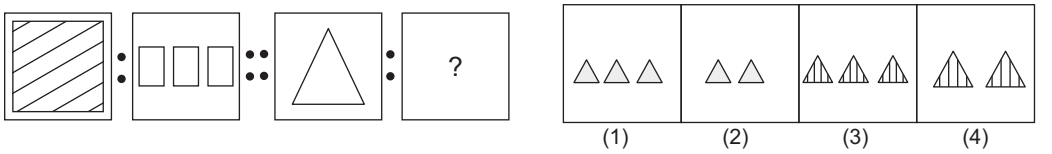




(1) (2) (3) (4)

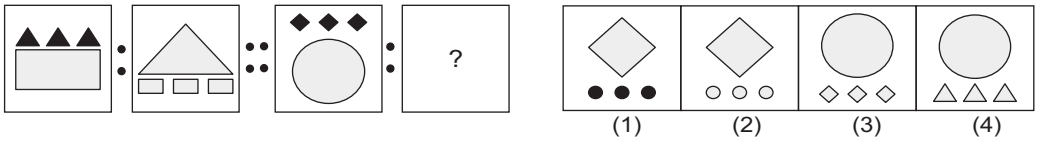
[JNV 2008]

28. **Questions Figures** **Answer Figures**



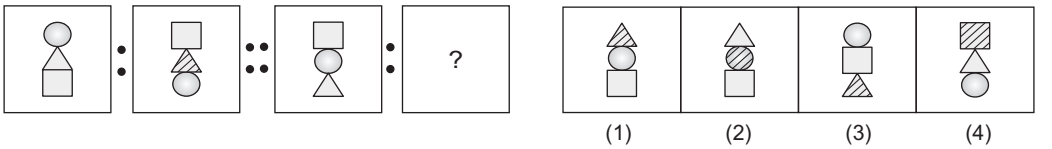
[JNV 2007]

29



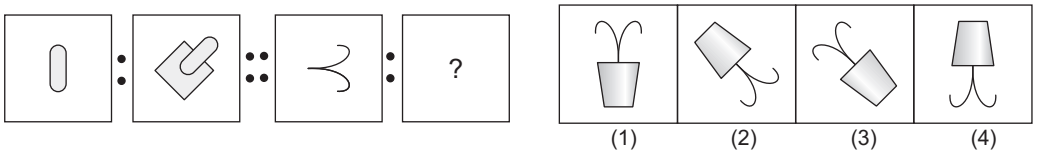
[JNV 2007]

30.



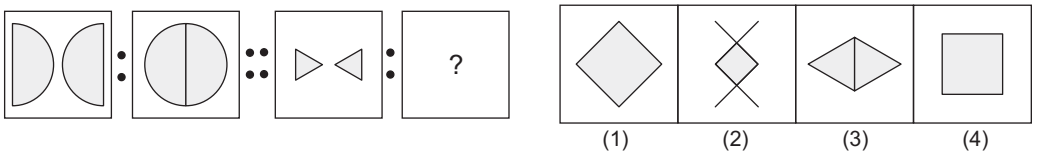
[JNV 2005]

31.



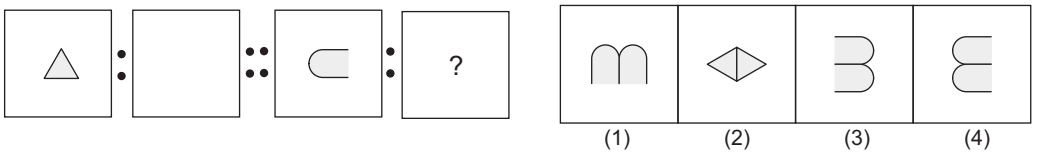
[JNV 2004]

32.



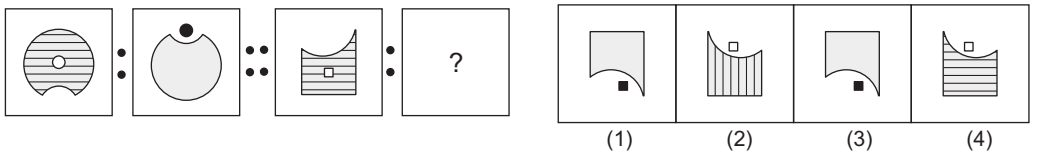
[JNV 2003]

33.



[JNV 2002]

34.



Answers

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

Hints and Solutions

1. The innermost element is enlarged and becomes the outermost element. The outermost element reduces in size and becomes the inner most element. Hence, figure (3) is the correct answer.

2. Second figure is the mirror image of first figure. Hence, answer figure (2) will replace the question mark.

3. From first figure to second figure, whole figure is rotated 90° anti-clockwise. Hence, answer figure (4) is correct choice.

4. From first figure to second the inner element is enlarged. Hence, answer figure (2) is the correct choice.

5. From first figure to second, upper element enlarged and becomes the middle element, lower element becomes upper element and middle element becomes lower element.

6. From first figure to second, whole figure rotates 180° and inner designs come outside and outer designs come inside.

7. Wh ole figure rotates 90° in Clockwise direction.

8. The corners of the geometrical figure become shaded and the enlarged edges removed.

9. Inner shape becomes outer and vice-versa

10. From question figure (1) to (2), whole figure rotates through 180°, the same changes occurs from question figure (3) to answer figure (1).

11. From question figure (1) to (2), there is an increment of one design, the same changes occurs from question figure (3) to the answer figure (3).

12. From question figure (1) to (2), the two smaller lines, adjoining main figure are disappeared, same changes occur from question figure (3) to answer figure (4).

13. The design is rotating 90° in clockwise direction.

14. From question figure (1) to (2) position of figures are inter-changed. Similar, rule follows from the question figure (3) to answer figure (1).

15. From question figure (1) to (2) lines become shaded. Similar, rule will follow from the question figure (3) to answer figure (3).

16. From question figure (1) to (2), whole design rotates 135° in clockwise direction. Similar, rule follows from question figure (3) to answer figure (2).

17. From question figure (1) to (2), circle becomes smaller and shaded. Similar, rule follows from question figure (3) to answer figure (2).

18. From question figure (1) to (2), whole figure rotates 90° clockwise direction and two shaded design comes to opposite it. Similar, rule follows from question figure (3) to answer figure (4).

19. Second figure is the mirror image of first figure.

20. Likewise circle is connected to all of the corners of squares. Similarly circle will be connected to all of the vertices of triangle.

21. From curved Question figure (1) to (2) curved lines go to opposite direction and middle small line becomes large. Similar rule follows from the question figure (3) to answer figure (4).

22. Second figure is the mirror image of first figure.

23. In first pair, first figure becomes double. Similarly, this rule follows in third figure.

24. From first figure to second, a geometrical shape with a lesser edge appears inside the design in first figure.

25. From question figure (1) to (2), lower element becomes upper and shaded. Similarly answer figure (1) will be obtained from question figure (3).

26. First figure is moving 90° clockwise to get the second figure. Similarly third figure is moving 90° clockwise get the fourth figure.

27. From question figure (1) to (2) whole design divides into two parts. Similar, rule follows from the question figure (3) to answer figure (3).

28. Larger figure becomes smaller and thrice in number. Also, shaded figure becomes unshaded and vice-versa.

29. Smaller figure becomes larger and vice versa. Single figure becomes thrice and vice-versa. Also, shaded figure becomes unshaded.

30. In question figures first and second the upper figure and lower figure interchange their, positions and the middle figure becomes shaded. Answer figure (2) will occupy the blank space marked with the sign of interrogation.

31. The design is moving 45° in clockwise direction and a new larger design appears.

32. Both the half designs joined together to form a single design.

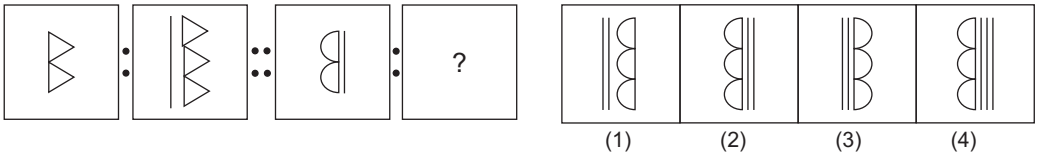
33. From first figure to second, similar design appears in opposite direction.

34. Whole figure is invested and becomes unshaded. The smaller shape inside the main figure comes outside and becomes shaded.

Practice Exercise

Directions (Q. Nos. 1-55) *In the following questions, the first two figures in the question figures are related to each other in same way. The same relationship holds between the third figure of the question figure and one of the answer figures* 1, 2, 3 *and* 4 *Identify the figure, which can replace the question mark*(?).

1. **Question Figures** **Answer Figures**



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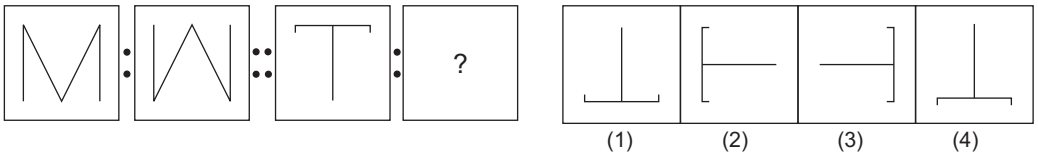

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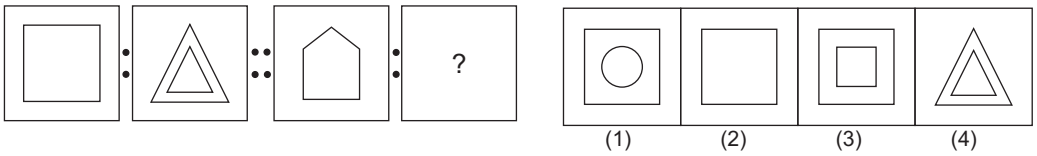

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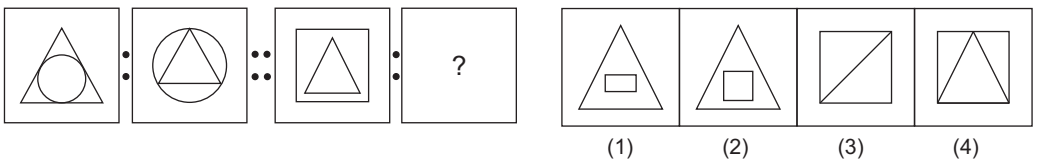

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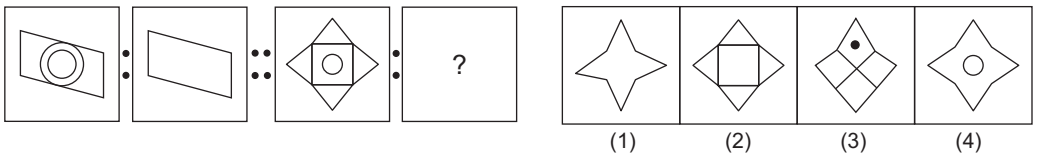
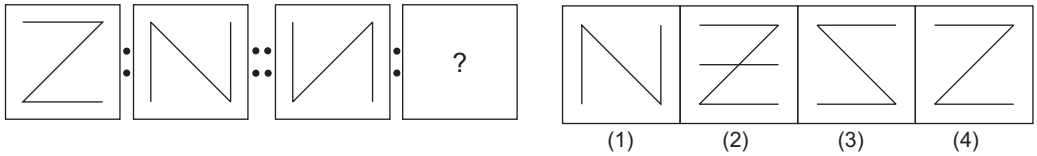


6. **Question Figures** **Answer Figures**



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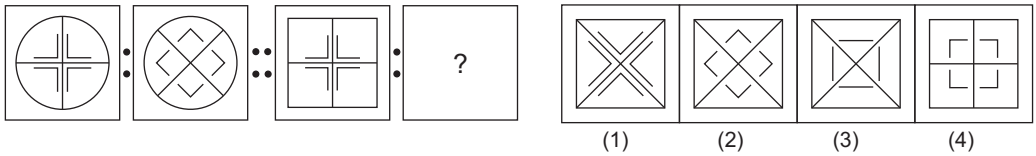

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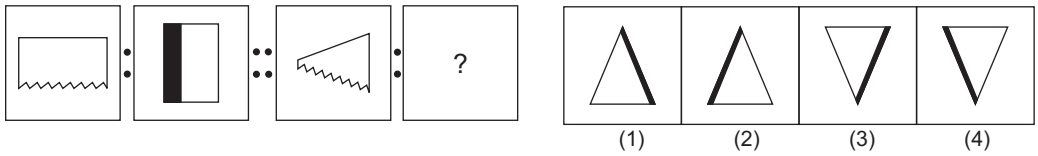

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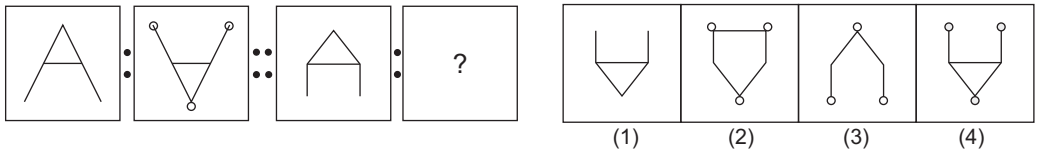
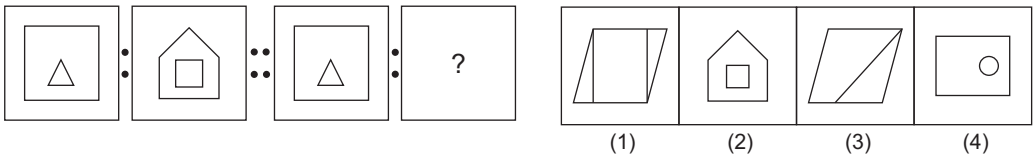


10.



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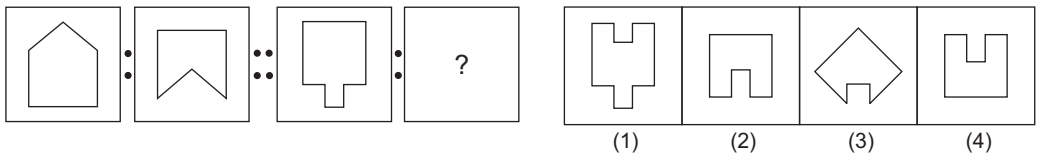

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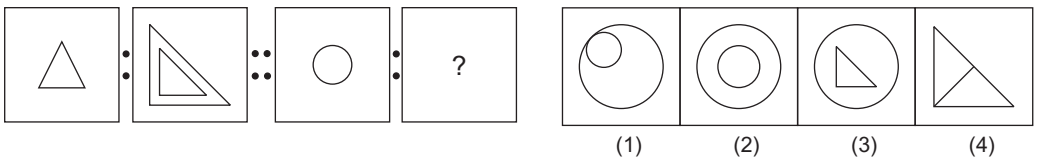
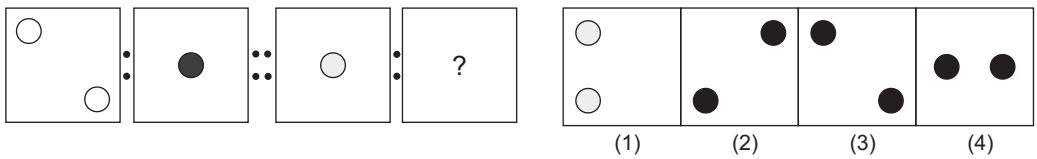
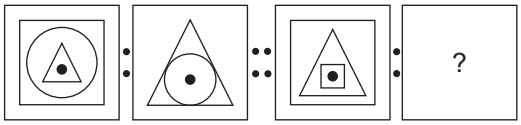


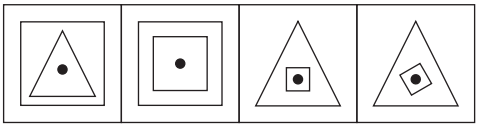
13.



14. Question Figures



Answer Figures



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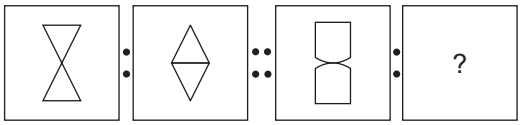

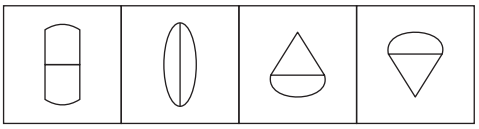

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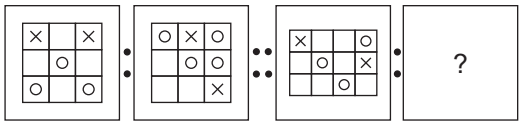

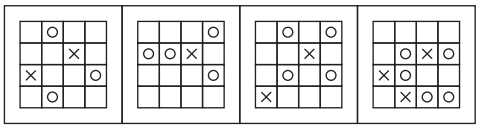

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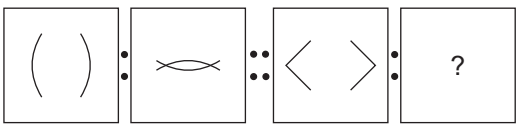

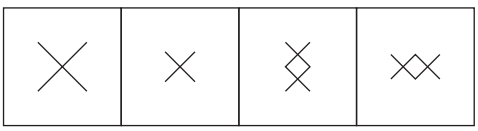

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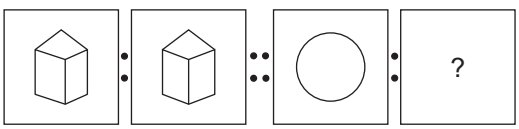

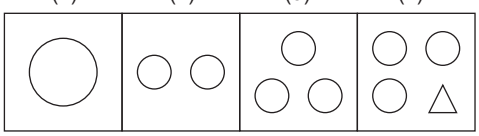

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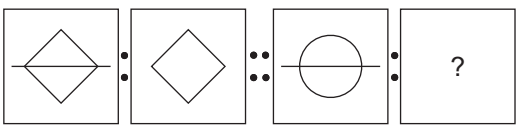

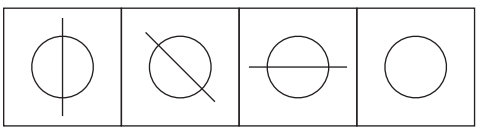

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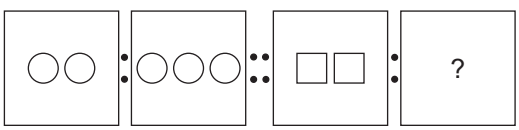

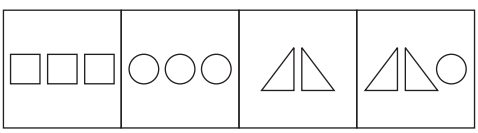

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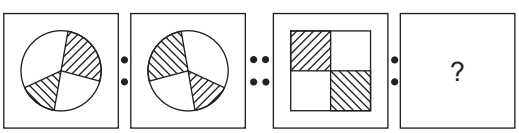
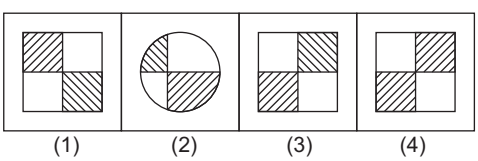
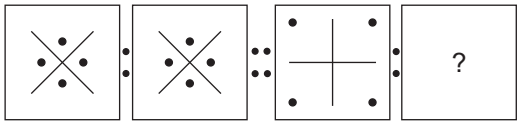
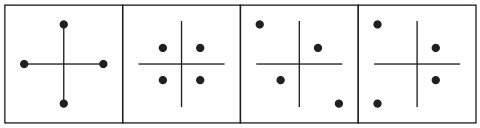




22. **Question Figures** **Answer Figures**





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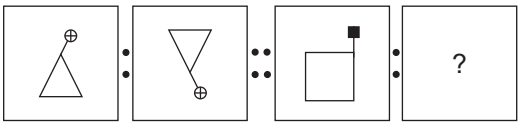

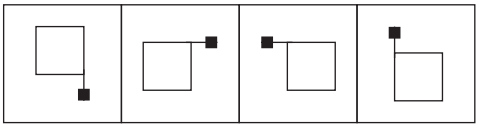

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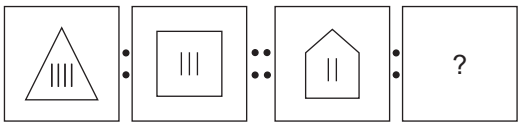

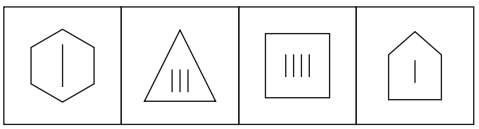

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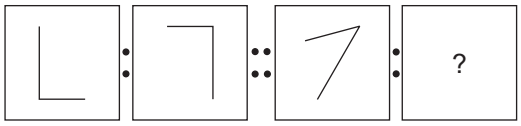

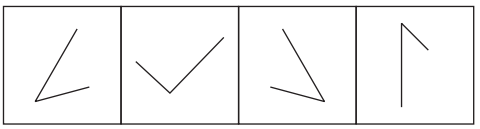

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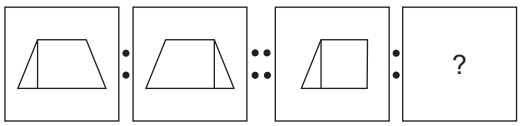

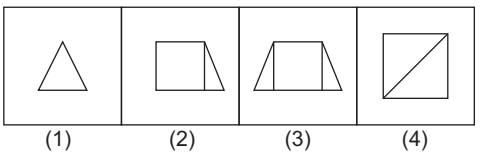

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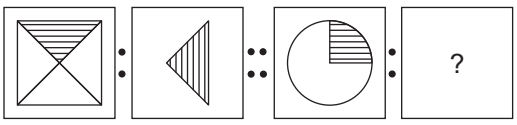

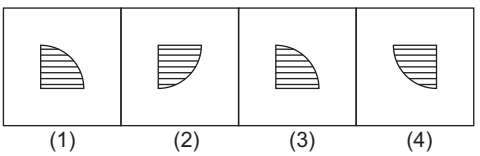

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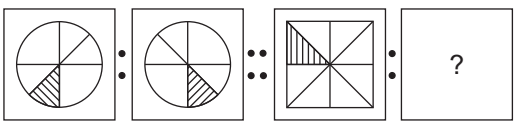

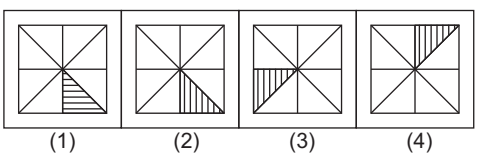

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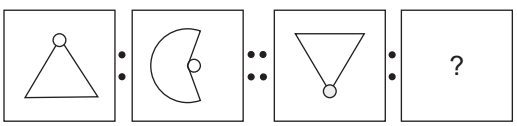
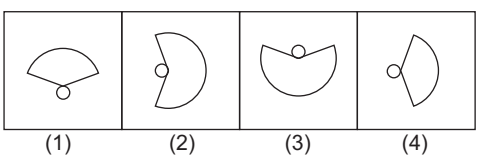
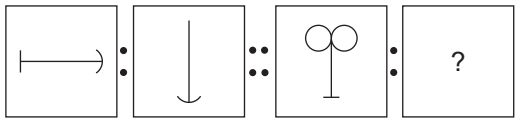
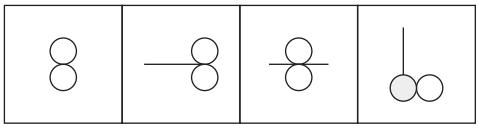




30. Question Figures **Answer Figures**





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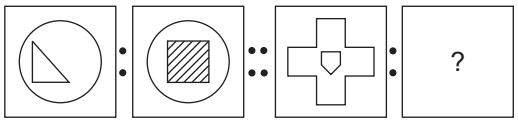

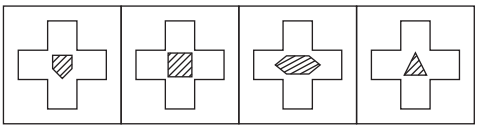

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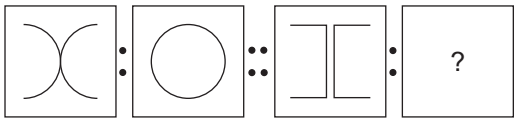

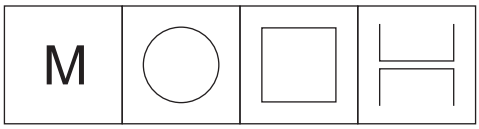

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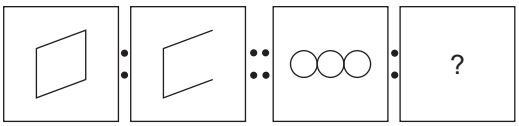

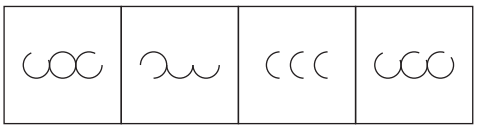

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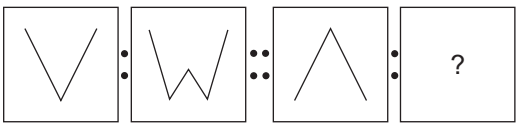

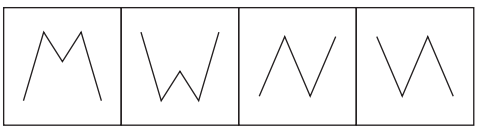

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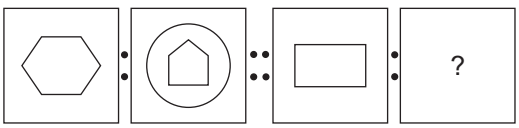

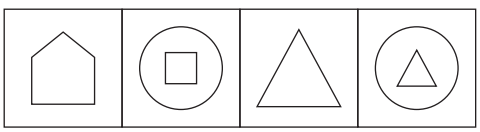

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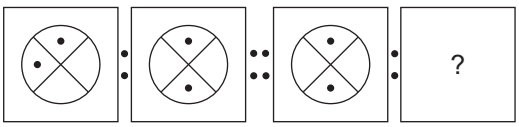

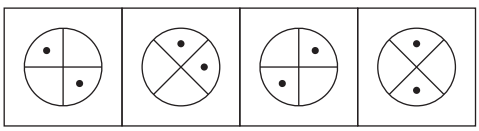

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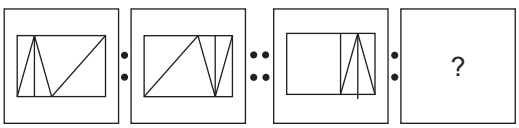
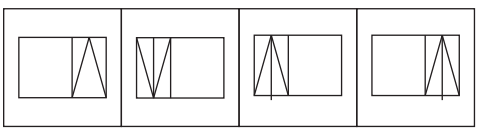
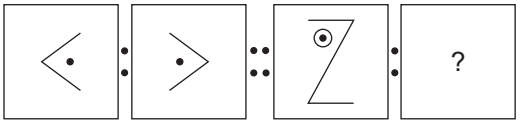
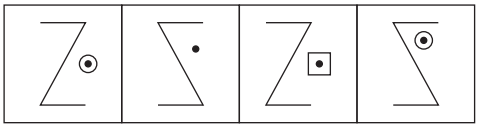




38. **Question Figures**



Answer Figures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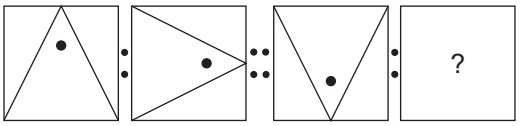

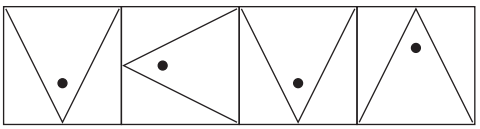
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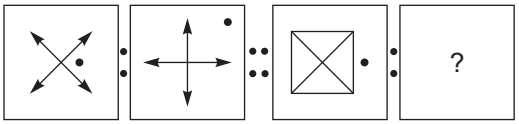

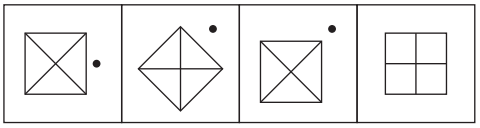
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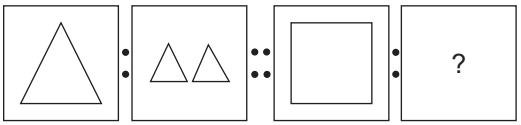

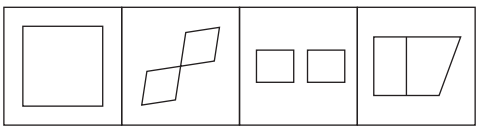
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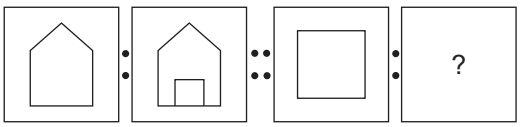

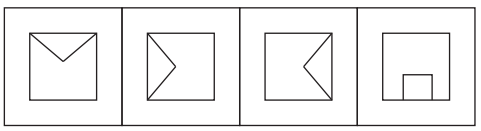
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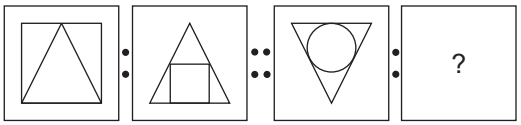

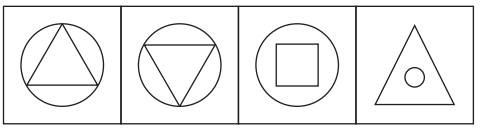
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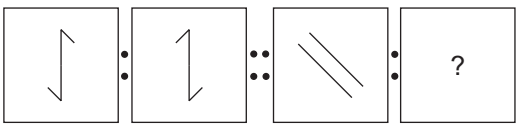

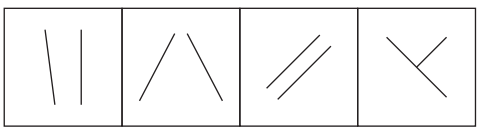
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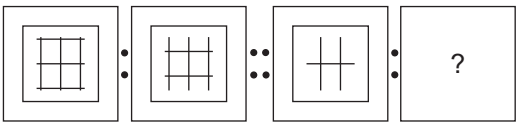

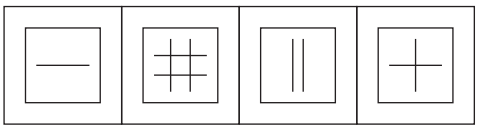
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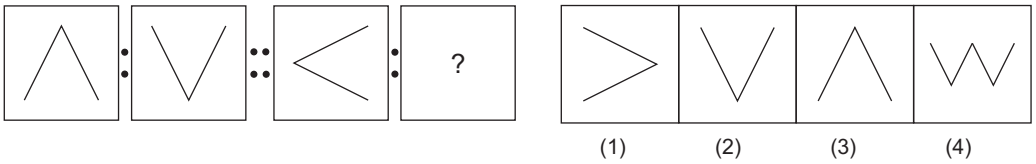
46. Question Figures **Answer Figures**



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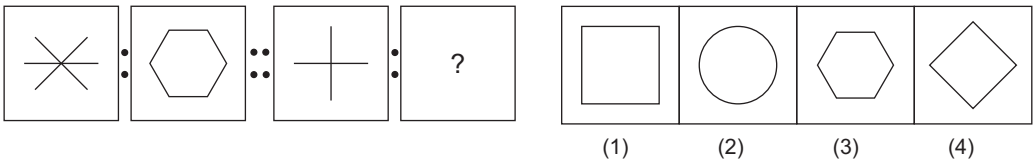

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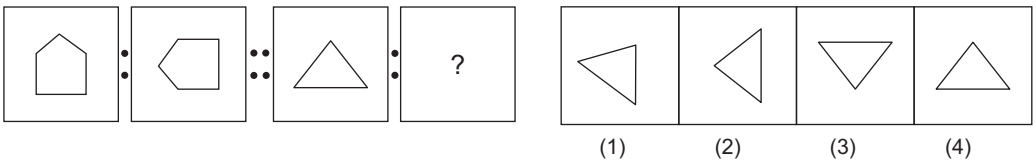

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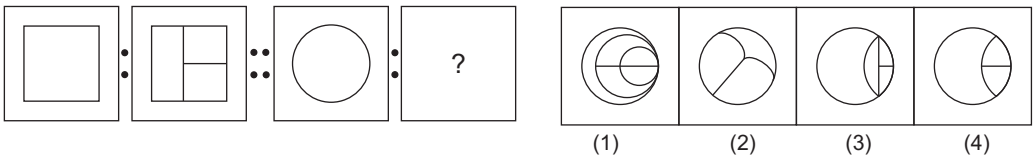

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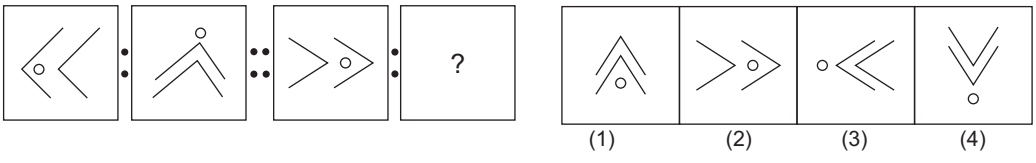

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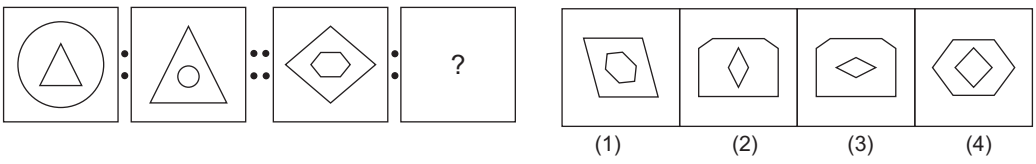

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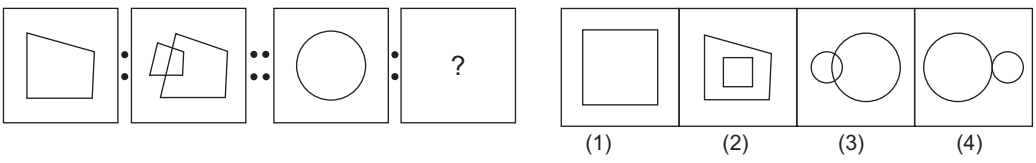

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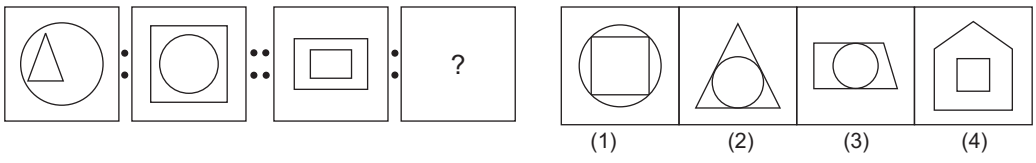
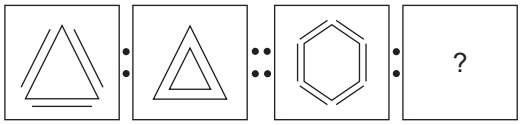


54. Question Figures



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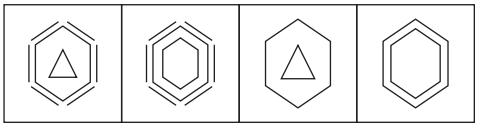

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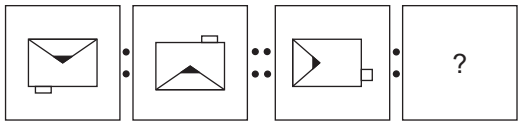
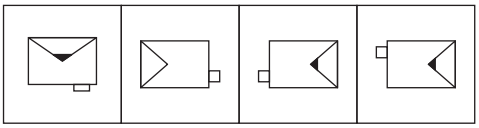




Answers

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

Hints and Solutions

1. In the second figure, one design is added with a line.

2. The second figure is formed by rotating. The first figure by 180°.

3. The first question figure has four sides and the second question figure has three sides with same figure inside. Similarly, the question figure should have four sides in place of five sides with same figure inside.

4. From first figure to second, inner shape becomes outer and vice-versa.

5. From first figure to second, the inner design disappears.

6. From first figure to second, whole design rotates through 90° clockwise.

7. From figure (1) to (3) inner design remains same and the circle changes to rectangle.

8. The zig-zag portion of first figure becomes shaded and then the figure is turned 90° clockwise.

9. The design gets reversed and the circles appear at the edge of design.

10. The question figure 3 is same as the question figure 1. Thus, the answer figure will be same as the question figure 2.

11. Whole figure rotates through 180° and the outer part flips inside.

12. The triangle becomes double similarly circle becomes double.

13. The question figure 3 is same as the question figure 2. Similarly the answer figure will be same as the question figure 1. Also, shaded becomes unshaded and vice-versa.

14. Inner two designs are changing their place and outer design is deleted.

15. Both the designs are inverted and joined to form a new figure.

16. From first figure to second. The number of circle is increasing by one and the number of '×' remains same.

17. The arcs in 1st figure intersect each other in 2nd figure, then the resulting figure is moved 90°.

18. The question figure is same as the question figure 2. Similarly the answer figure will be same as the question figure 3.

19. In the question figures, the line segment is removed.

20. Two circles becomes three circles. Thus, two squares will become three squares.

21. The design is moving 90° in anti-clockwise direction.

22. In the figures, the dots move closure to the centre.

23. The design is inverted on its axis.

24. In the figures, the number of sides of the design are increasing by one and the number of internal lines are decreasing by one.

25. The design is rotating through 180°.

26. Second figure is the mirror image of first figure.

27. The shaded part comes out and moves 90° clockwise.

28. Second figure is the mirror image of first figure.

29. Third figure is obtained by rotating the first figure through 180°. Similarly, fourth figure will be obtained by rotating the second figure through 180°.

30. The design is moving 90° in clockwise direction and the small line attached to it is removed.

31. The number of sides of the inner design are increasing by one and gets shaded.

32. Two half designs are joining and forming a full design.

33. In the designs, one arm or side is removed.

34. The question figure 3 is inverted design of the question figure 1. Thus, the answer figure will be the inverted design of the question figure 2.

35. The side of the design is decreasing by one and comes inside of the circle.

36. In the designs, one dot is moving 90° anti-clockwise.

37. The right side design get reversed and comes at left side and the left side design get reversed and comes at right side.

38. Second figure is the mirror image of the first figure.

39. The design is moving 90° in clockwise direction.

40. The design is moving 45° clockwise and the black dot shifts at the right corner.

41. From first figure to second, the design becomes double.

42. A square is forming on the base of the design.

43. The inner design comes outside and the outer design goes inside.

44. Second figure is the inverted image of first.

45. In the inner design, the horizontal line is decreasing by one and the verticle line remains same.

46. The design is rotating 180°.

47. The design is formed by joining the ends of the line.

48. The design is rotating 90° anti-clockwise.

49. The design is dividing into three parts and two parts are equal.

50. The designs are moving 90° in clockwise direction and circle is shifted outside.

51. The inner design comes outside and the outer design goes inside.

52. One same design is intersecting on its left side.

53. Outer design comes inside and by increasing one side the inner design becomes outer design.

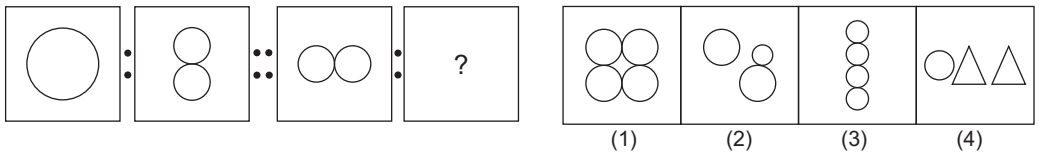
54. The design is formed by joining the outer lines.

55. The upper design comes downward and the lower design goes upward.

Self Practice

Directions (Q. Nos. 1-23) *In the following questions, the first two figures in the question figures are related to each other in same way. The same relationship holds between the third figure of the question figure and one of the answer figures* 1, 2, 3 *and* 4. *Identify the figure, which can replace the question mark*(*?*).

1. **Question Figures** **Answer Figures**



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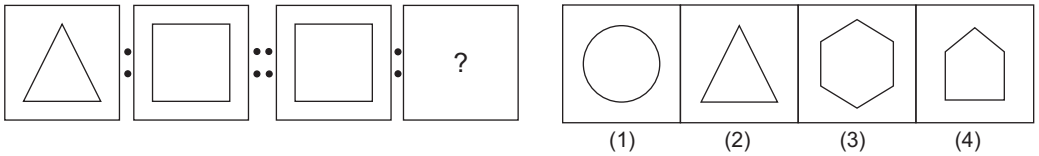

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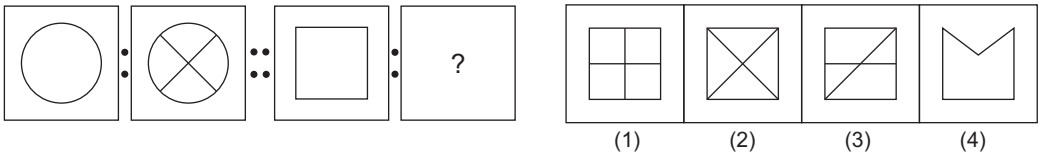

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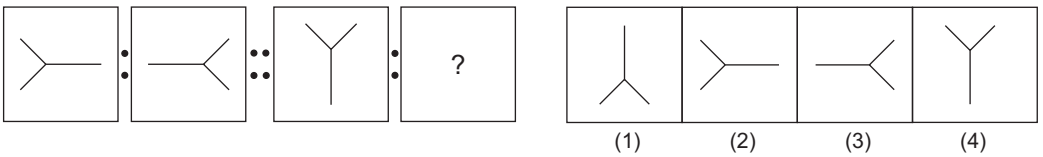

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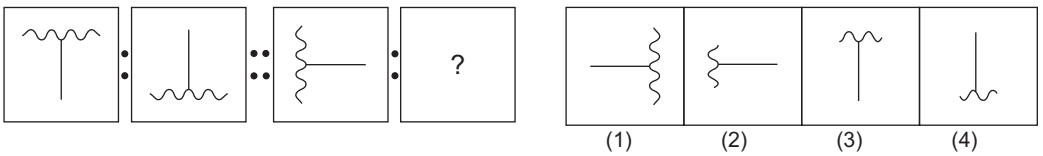

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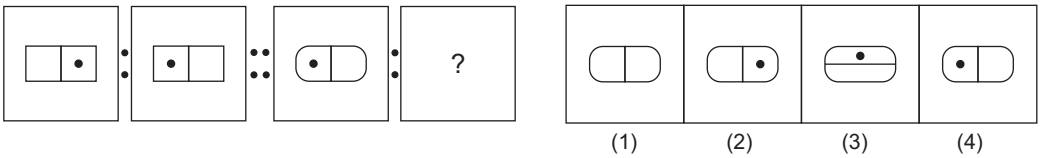

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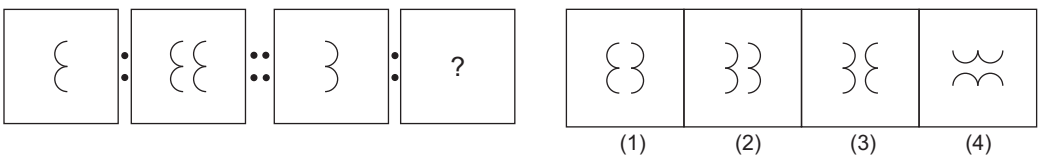
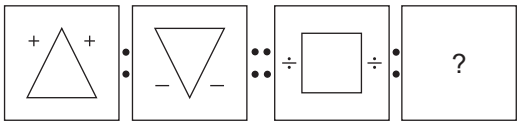
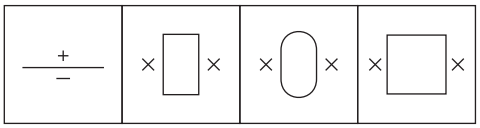


8. Question Figures



Answer Figures



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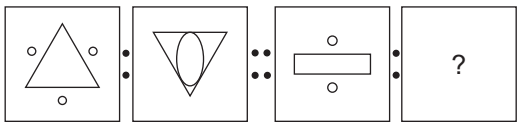

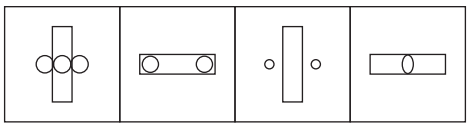

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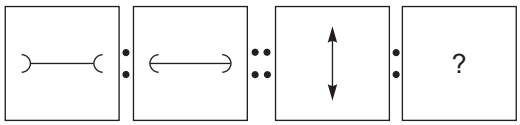

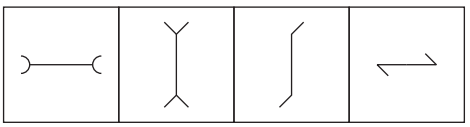

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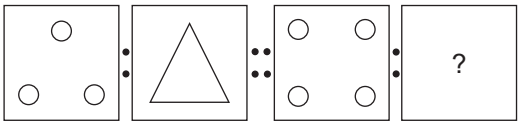

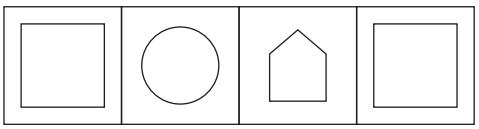

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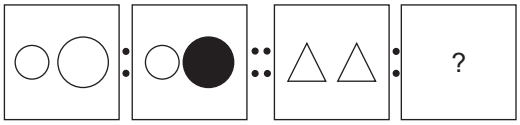

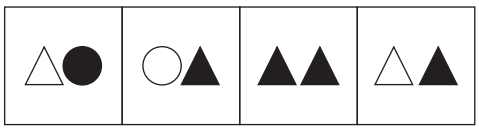

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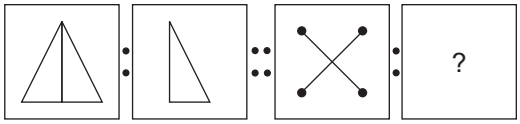

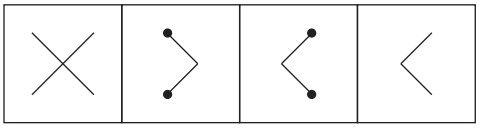

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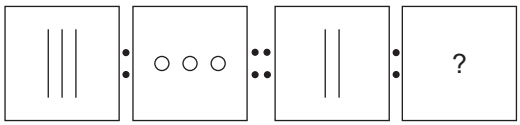

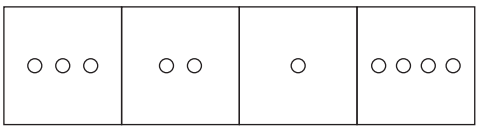

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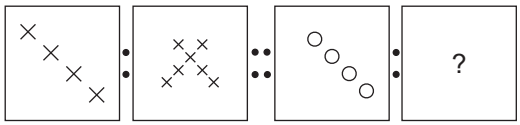

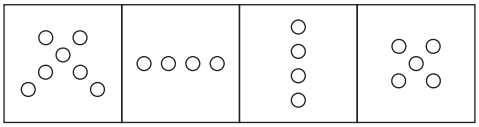

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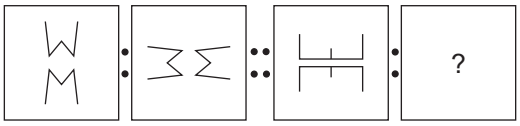
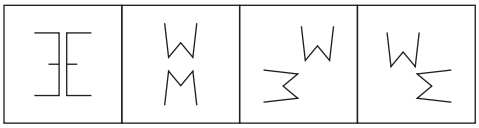
16. **Question Figures**



Answer Figures



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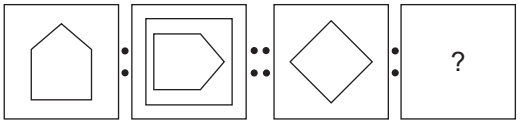

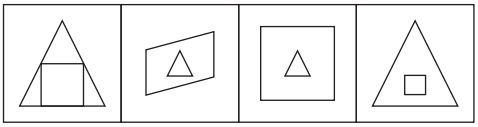

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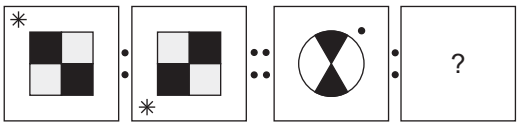

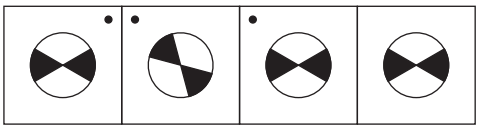

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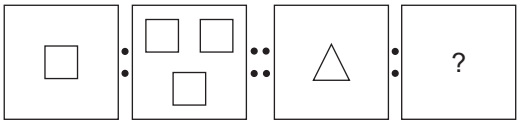

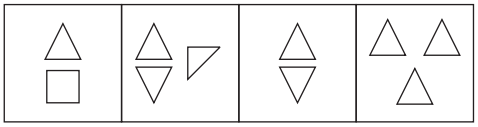

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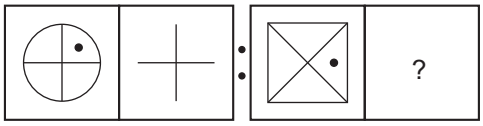

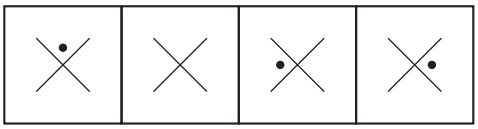

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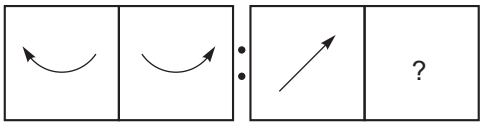
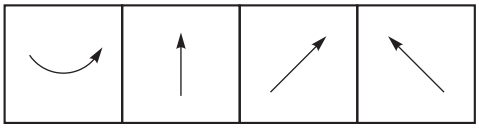
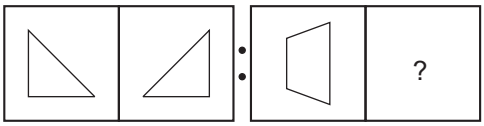
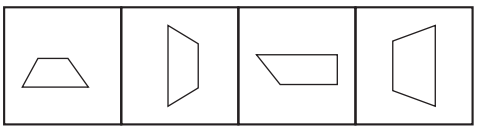




(1) (2) (3) (4)

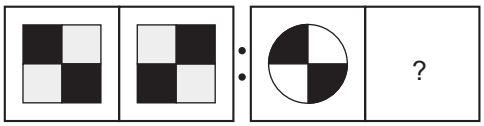
22.

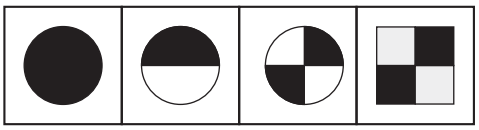




(1) (2) (3) (4)

23.





(1) (2) (3) (4)

Answers

1 (1)	**2** (4)	**3** (2)	**4** (1)	**5** (1)	**6** (2)	**7** (2)	**8** (4)	**9** (4)	**10** (2)
11 (1)	**12** (4)	**13** (3)	**14** (2)	**15** (1)	**16** (1)	**17** (4)	**18** (3)	**19** (4)	**20** (2)
21 (4)	**22** (2)	**23** (3)							