7

Symmetry

7th Standard

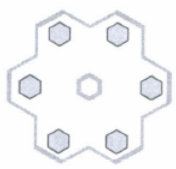
Mathematics

Exam Time : 00:01:00 Hrs

Total Marks : 1

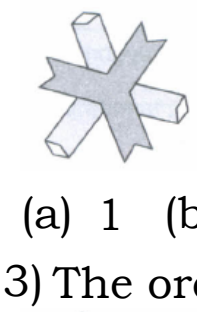
56 x 1 = 56

1) The number of lines of symmetry in the figure given below is



(a) 4 (b) 8 (c) 6 (d) infinitely many

2) The number of lines of symmetry in figure is



(a) 1 (b) 3 (c) 6 (d) infinitely many

3) The order of rotational symmetry in the figure given below is

(a) 4 (b) 8 (c) 6 (d) infinitely many

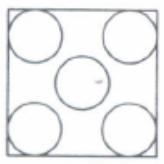
4) The order of rotational symmetry in the figure given below is

(a) 4 (b) 2 (c) 1 (d) infinitely many

5) The angle of rotation in equilateral triangle is

(a) 60° (b) 70° (c) 90° (d) 120°

6) The angle of rotation for the figure given below is



(a) 45° (b) 60° (c) 90° (d) 180°

7) In the word 'MATHS', which of the following pairs of letters shows rotational symmetry?

(a) M and T (b) H and S (c) A and S (d) T and S

8) Which of the following has a line of symmetry

(a)  (b)  (c)  (d) 

9) Which of the following are reflections of each other?

(a)  (b)  (c)  (d) 

10) Which of the following letters of English alphabets have more than 2 lines of symmetry?

(a) Z (b) O (c) E (d) H

11) An equilateral triangle has a rotational symmetry of order

(a) 4 (b) 3 (c) 2 (d) none of these

12) A rectangle has the number of lines of symmetry

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

13) A circle has:

(a) no line of symmetry (b) Four lines of symmetry (c) Two lines of symmetry

(d) An unlimited number of lines of symmetry

14) A scalene triangle has:

(a) No line of symmetry (b) One line of symmetry (c) Two lines of symmetry

(d) None of these.

15) A regular pentagon has how many lines of symmetry?

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

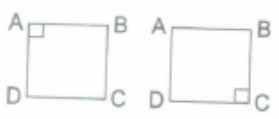
16) Which of the following letters of the English alphabet has reflectional symmetry about a vertical mirror?

(a) A (b) B (c) C (d) D

17) What is the order of rotational symmetry of a square?

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

18) Which of the following has rotational symmetry?

(a) 

(b)  (c)  (d) 

19) The order of rotational symmetry of a circle is:

(a) 1 (b) 4 (c) 2 (d) infinite

20) A ceiling fan with three blades is seen from directly under it. The order of rotational symmetry is:

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

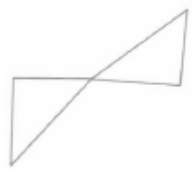
21) The order of rotational symmetry of an equilateral triangle is:

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

22) The order of rotational symmetry of a square is:

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

23) The order of rotational symmetry of the following figure is:



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

24) Which of the following has only one line of symmetry?

(a) A rectangle (b) A square (c) A semi-circle (d) An equilateral triangle

25) The angle of rotation of a rectangle is:

(a) 90° (b) 180° (c) 270° (d) 360^0

26) The angle of rotation of an equilateral triangle is:

(a) 60° (b) 120° (c) 180° (d) 270°

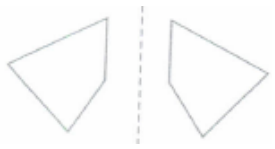
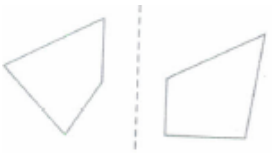
27) The angle of rotation of an isosceles triangle is:

(a) 120° (b) 270° (c) 180° (d) 360°

28) The diagonals of a quadrilateral intersect at right angles but it has exactly one axis of symmetry. The quadrilateral is:

(a) a rhombus (b) a square (c) a kite (d) a rectangle

29) Which of the following figure shows the reflection symmetry?

(a)  (b)  (c)  (d) 

30) The letter **N** has rotational symmetry of order:

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

31) A regular pentagon has rotational symmetry of order:

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

32) How many lines of symmetry are there in an equilateral triangle?

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

33) How many lines of symmetry are there in a square?

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

34) How many lines of symmetry are there in a rectangle?

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

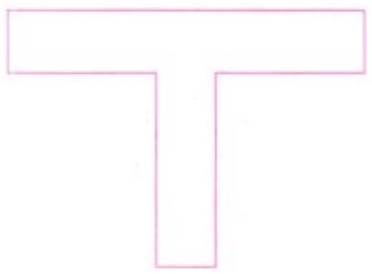
35) How many lines of symmetry are there in a regular pentagon?

(a) 1 (b) 2 (c) 3 (d) 5

36) How many lines of symmetry are there in a regular hexagon?

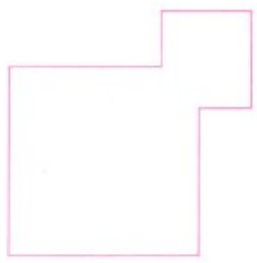
(a) 2 (b) 4 (c) 6 (d) 3

37) How many lines of symmetry are there in the following figure?



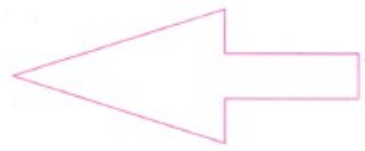
(a) 1 (b) 2 (c) 3 (d) 4

38) How many lines of symmetry are there in the following figure?



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

39) How many lines of symmetry are there in the following figure?



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

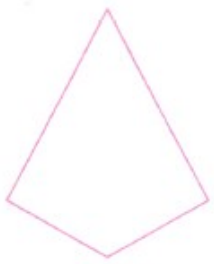
40) How many lines of symmetry are there in the following figure?

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

41) How many lines of symmetry are there in the following figure?

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

42) How many lines of symmetry are there in following figure?



(a) 1 (b) 2 (c) 3 (d) None of these

43) How many lines of symmetry are there in the following figure?

(a) 1 (b) 2 (c) 3 (d) Infinitely many

44) How many lines of symmetry are there in an isosceles triangle?

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

45) How many lines of symmetry are there in a scalene triangle?

(a) 1 (b) 0 (c) 2 (d) 4

46) How many lines of symmetry are there in a rhombus?

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

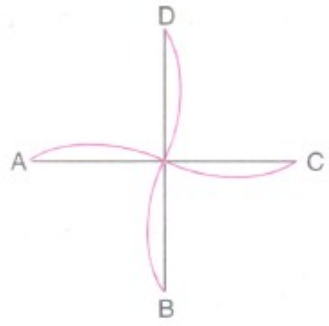
47) How many lines of symmetry are there in a parallelogram?

(a) 0 (b) 1 (c) 2 (d) None of these

48) How many lines of symmetry are there in a quadrilateral?

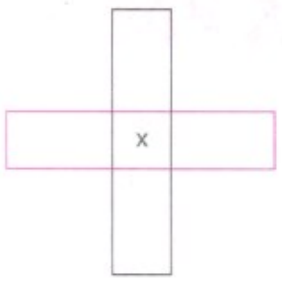
(a) 0 (b) 2 (c) 4 (d) None of these

49) What is the order of the rotational symmetry of the following figure?



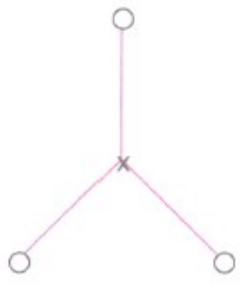
(a) 4 (b) 3 (c) 2 (d) 1

50) The order of the rotational symmetry of the following figure about the point marked x (cross) is



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

51) The order of the rotational symmetry of the following figure about the point marked x is



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

52) The order of the rotational symmetry of the following figure about the point marked x is

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

53) Which of the following letters of English alphabet has reflectional symmetry about a vertical mirror?

(a) H (b) J (c) Z (d) P

54) Which of the following letters of English alphabet has reflectional symmetry about a horizontal mirror?

(a) H (b) K (c) M (d) W

55) Which of the following letters of English alphabet has reflectional symmetry about both horizontal and vertical mirrors?

(a) O (b) Y (c) T (d) L

56) The quadrilateral which has both line and rotational symmetry of order more than 1 is

(a) isosceles triangle (b) rhombus (c) scalene triangle (d) square.

42 x 1 = 42

57)

SHAPE	**CENTRE OF ROTATION**	**ORDER OF ROTATION**	**ANGLE OF ROTATION**
Square			

58)

SHAPE	**CENTRE OF ROTATION**	**ORDER OF ROTATION**	**ANGLE OF ROTATION**
Rectangle			

59)

SHAPE	**CENTRE OF ROTATION**	**ORDER OF ROTATION**	**ANGLE OF ROTATION**
Rhombus			

60)

SHAPE	**CENTRE OF ROTATION**	**ORDER OF ROTATION**	**ANGLE OF ROTATION**
Equilateral triangle			

61)

SHAPE	**CENTRE OF ROTATION**	**ORDER OF ROTATION**	**ANGLE OF ROTATION**
Regular hexagon			

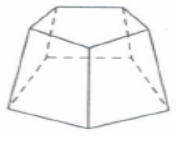
62)

SHAPE	**CENTRE OF ROTATION**	**ORDER OF ROTATION**	**ANGLE OF ROTATION**
Circle			

63)

SHAPE	**CENTRE OF ROTATION**	**ORDER OF ROTATION**	**ANGLE OF ROTATION**
Semi-circle			

64) The following figure has _____ vertices, _____ edges and _____ faces.



65) Rotation turns an object about a fixed point. This fixed point is called _____

66) In an isosceles right angled triangle, the number of lines of symmetry is _____

67) Rhombus is a figure that has _____ lines of symmetry and has a rotational symmetry of order _____

68) _____ triangle is a figure that has a line of symmetry, but lacks rotational symmetry.

69) _____ is a figure that has neither a line of symmetry nor a rotational symmetry.

70) Each of the letters H, N, S and Z has a rotational symmetry of order _____

71) Order of rotational symmetry of a rectangle is _____

72) Order of rotational symmetry of a circle is _____

73) Line of symmetry for an angle is its _____

74) Order of rotational symmetry of  is _____

75) A figure is said to be symmetrical about a ___ if it is identical on either side of it. [plane/line]

76) An isosceles triangle is symmetrical about the bisector of the angle included between the sides. [equal/unequal]

77) A line segment is symmetrical about [any perpendicular on it/its perpendicular bisector]

78) An angle having equal arms is symmetrical about the bisector of _____ [either arm/the angle]

79) If ABCD is an isosceles trapezium such that AB || DC and AD = BC, then it is symmetrical about the line joining the midpoint of . [AB and DC/AD and BC]

80) A rectangle has two lines of symmetry each one of which is the line joining the midpoint of sides. [opposite/adjacent]

81) An equilateral triangle is symmetrical about each on of the bisector of its _____[sides/interior angles]

82) A square has lines of symmetry. [four/two]

83) The number of times a shape will fit onto itself in one complete turn is called ____ of the rotational symmetry

84) An equilateral triangle has_____ symmetry of order three.

85) A square has a rotational symmetry of order_____

86) A rectangle has a rotational symmetry of order_____

87) Rotating a figure through 90° clockwise is the same as rotating it anti-clock wise through_____ [270°/180°]

88) Rotating a figure through 180° clockwise is the same as rotating it anti-clock wise through _____[90°/180°]

89) If we rotate a figure through 90°, 180°, 270° and 360° such that it fits exactly onto it each time, then it has a rotational symmetry of the order_____[four/two]

90) If a figure when rotated through 120°, 240° and 360° such that it fits exactly onto itself each time, then it has a rotational symmetry of the order_____[four/three]

91) An equilateral triangle has _____ lines of symmetry.

92) A regular pentagon has _____ lines of symmetry

93) A square has _____lines of symmetry.

94) A parallelogram has _____ lines of symmetry

95) When an object rotates about a fixed point, then this fixed point is called the _____of rotation.

96) A full-turn means a rotation of_____ degrees

97) A half-turn means a rotation of _____degrees

98) An equilateral triangle has a rotational symmetry of order_____

10 x 1 = 10

99) A circle has two lines of symmetry.
(a) True (b) False

100) An angle has two lines of symmetry.
(a) True (b) False

101) A regular hexagon has six lines of symmetry.
(a) False (b) True

102) An isosceles trapezium has one line of symmetry.
(a) False (b) True

103) A parallelogram has two lines of symmetry.
(a) True (b) False

104) Order of rotational symmetry of a rhombus is four.
(a) True (b) False

105) An equilateral triangle has six lines of symmetry
(a) True (b) False

106) Order of rotational symmetry of a semi-circle is two.
(a) True (b) False

107) The number of line of symmetry of a regular polyqon is equal to the vertices of the polygon.
(a) False (b) True

108) The angle of rotational symmetry of a figure is 4 and the angle of rotation is 180° only.
(a) True (b) False

8 x 1 = 8

109) A half-turn means rotation by (1) 90°
110) A quarter-turn means rotation by (2) Angle of rotation
111) A complete turn means rotation by (3) Point of rotation
112) Regular polygon have equal (4) 8
113) The point about which the figure is rotated: (5) 1
114) The minimum angle through which a figure has to be rotated to look exactly the same (6) 360°
115) The order of rotational symmetry of an isosceles triangle. (7) 180°
116) The order of rotational symmetry of a regular octagon: (8) side and angles

19 x 1 = 19

117) How many lines of symmetry are there in a rectangle
118) How many lines of symmetry are there in a square?
119) How many lines of symmetry are there in a circle.
120) How many lines of symmetry are there in an isosceles triangle?
121) How many lines of symmetry are there in a parallelogram?
122) What do we call a line which divides a figure into two identical halves?
123) What do we call the point about which an object rotates?
124) What do we call the minimum angle through which it has to rotate to look exactly the same?
125) If the angle of rotation is 180°, then what is the order of rotational symmetry?
126) Which of the English alphabets have reflectional symmetry about both horizontal and vertical mirrors?
127) What is the order of rotation of a figure having rotational angle 120^{o} ?
128) What is the order of rotation of a semi-circle?

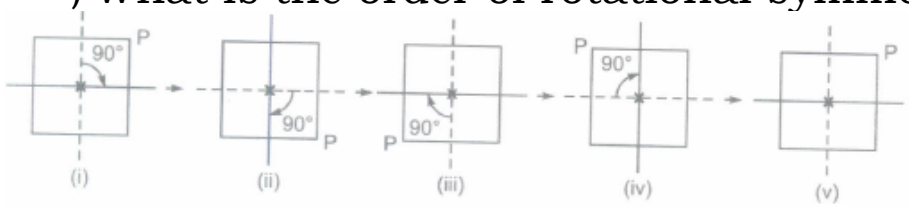
129) How many lines of symmetry are there in a rhombus?

130) Which of the following letters are symmetric about both horizontal and vertical lines
A, B, O, I, X, P, C, L, H and K

131) What is centre of rotation of the given figure?

132) What is the angle of rotation?

133) What is the order of rotational symmetry of a square?



134) Does a semi-circle has a rotational symmetry? What is its line of symmetry?

135) Can you show that the letters Z and X have rotational symmetry of order 2.

130 x 2 = 260

136) Copy the figure with punched holes and find the axes of symmetry for the following:

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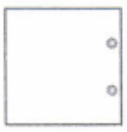

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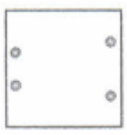

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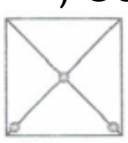

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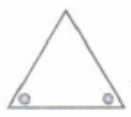

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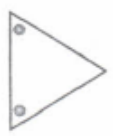

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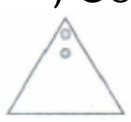
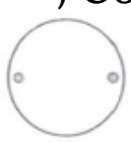


145) Copy the figure with punched holes and find the axes of symmetry for the following:



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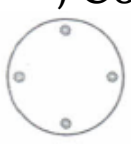

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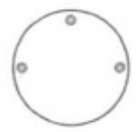
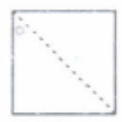


148) Given the line(s) of symmetry, find the other hole(s).



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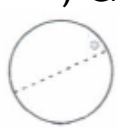

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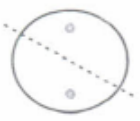
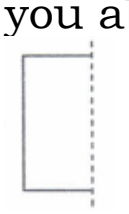


153) In the following figures, the mirror line (i.e. the line of symmetry) is given as a dotted line. Complete each figure performing reflection in the dotted (mirror) line. (You might perhaps place a mirror along the dotted line and look into the mirror for the image). Are you able to recall the name of the figure you complete?



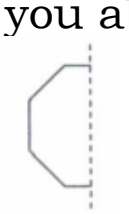
154) In the following figures, the mirror line (i.e. the line of symmetry) is given as a dotted line. Complete each figure performing reflection in the dotted (mirror) line. (You might perhaps place a mirror along the dotted line and look into the mirror for the image). Are you able to recall the name of the figure you complete?

155) In the following figures, the mirror line (i.e. the line of symmetry) is given as a dotted line. Complete each figure performing reflection in the dotted (mirror) line. (You might perhaps place a mirror along the dotted line and look into the mirror for the image). Are you able to recall the name of the figure you complete?

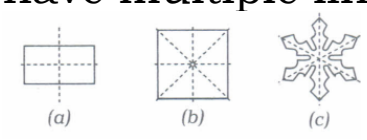
156) In the following figures, the mirror line (i.e. the line of symmetry) is given as a dotted line. Complete each figure performing reflection in the dotted (mirror) line. (You might perhaps place a mirror along the dotted line and look into the mirror for the image). Are you able to recall the name of the figure you complete?

157) In the following figures, the mirror line (i.e. the line of symmetry) is given as a dotted line. Complete each figure performing reflection in the dotted (mirror) line. (You might perhaps place a mirror along the dotted line and look into the mirror for the image). Are you able to recall the name of the figure you complete?

158) In the following figures, the mirror line (i.e. the line of symmetry) is given as a dotted line. Complete each figure performing reflection in the dotted (mirror) line. (You might perhaps place a mirror along the dotted line and look into the mirror for the image). Are you able to recall the name of the figure you complete?

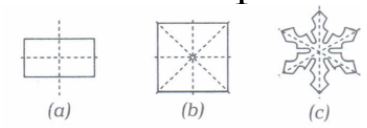


159) The following figures have more than one line of symmetry. Such figures are said to have multiple lines of symmetry.

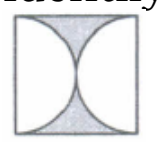


Identify multiple lines of symmetry, if any, in each of the following figures.

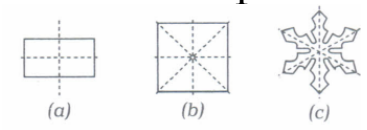
160) The following figures have more than one line of symmetry. Such figures are said to have multiple lines of symmetry.



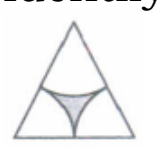
Identify multiple lines of symmetry, if any, in each of the following figures.



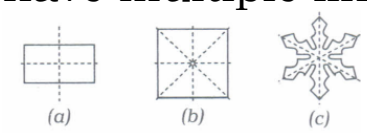
161) The following figures have more than one line of symmetry. Such figures are said to have multiple lines of symmetry.



Identify multiple lines of symmetry, if any, in each of the following figures.

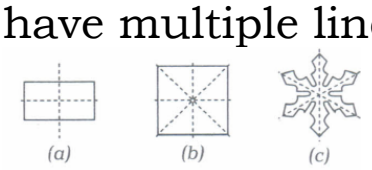


162) The following figures have more than one line of symmetry. Such figures are said to have multiple lines of symmetry.

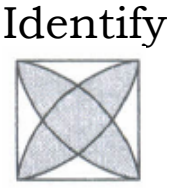


Identify multiple lines of symmetry, if any, in each of the following figures.

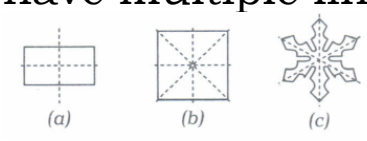
163) The following figures have more than one line of symmetry. Such figures are said to have multiple lines of symmetry.



Identify multiple lines of symmetry, if any, in each of the following figures.

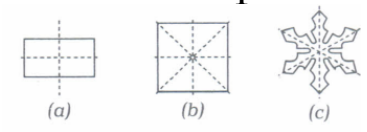


164) The following figures have more than one line of symmetry. Such figures are said to have multiple lines of symmetry.



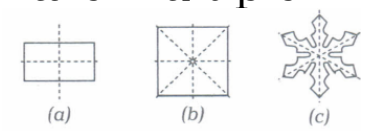
Identify multiple lines of symmetry, if any, in each of the following figures.

165) The following figures have more than one line of symmetry. Such figures are said to have multiple lines of symmetry.



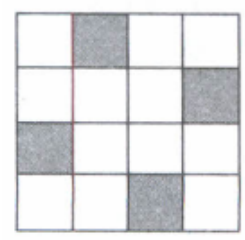
Identify multiple lines of symmetry, if any, in each of the following figures.

166) The following figures have more than one line of symmetry. Such figures are said to have multiple lines of symmetry.

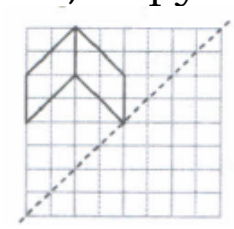


Identify multiple lines of symmetry, if any, in each of the following figures.

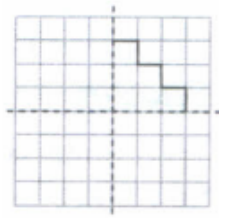
167) Copy the figure given here. Take anyone diagonal as a line of symmetry and shade a few more squares to make the figure symmetric about a diagonal. Is there more than one way to do that? Will the figure be symmetric about both the diagonals?



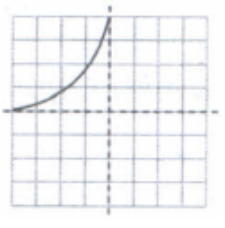
168) Copy the diagram and complete each shape to be symmetric about the mirror line(s).



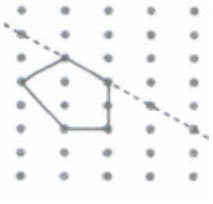
169) Copy the diagram and complete each shape to be symmetric about the mirror line(s).



170) Copy the diagram and complete each shape to be symmetric about the mirror line(s).



171) Copy the diagram and complete each shape to be symmetric about the mirror line(s).



172) What letters of the English alphabet have reflectional symmetry (i.e. symmetry related to mirror reflection) about a vertical mirror?

173) What letters of the English alphabet have reflectional symmetry (i.e. symmetry related to mirror reflection) about a horizontal mirror?

174) What letters of the English alphabet have reflectional symmetry (i.e. symmetry related to mirror reflection) about a both horizontal and vertical mirror?

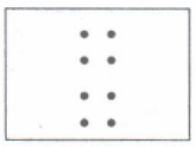
175) Give three examples of shapes with no line of symmetry.

176) What other name can you give to tile line of symmetry of
(a) an isosceles triangle?
(b) a circle?

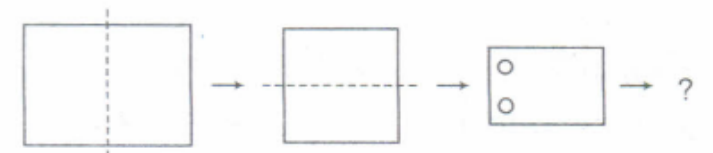
177) Find the line of symmetry in English letter E

178) Find the line of symmetry in the given image 3I.

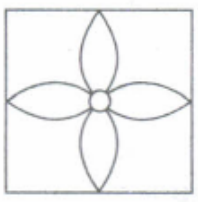
179) Find the axes of symmetry in the following figure.



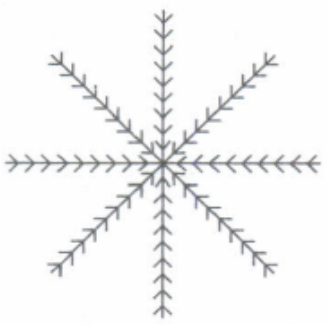
180) Follow the directions given below and form the final figure.



181) Draw the line of symmetry of the following figure:

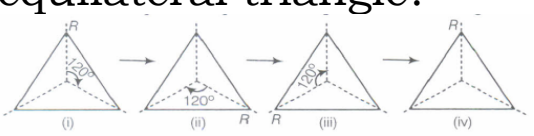


182) Find the number of lines of symmetry of the following figure:

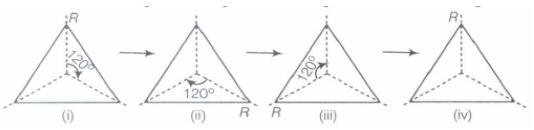


183) Draw the lines of symmetry of an octagon.

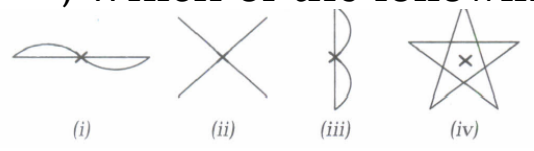
184) In the given figure, can you now tell the order of the rotational symmetry for an equilateral triangle?



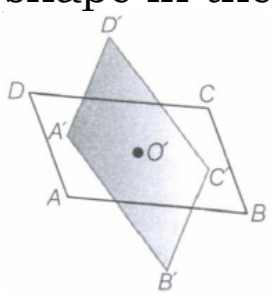
185) How many positions are there at which the triangle looks exactly the same, when rotated about its centre by 120°?



186) Which of the following shapes have rotational symmetry about the marked point?

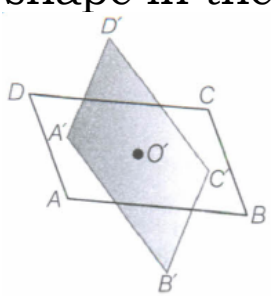


187) Draw two identical parallelograms, one ABCD on a piece of paper and other A' B' C' D' on a transparent sheet. Mark the points of intersection of their diagonals O and O', respectively. Place the parallelograms such that A' lies on A, B' lies on B and so on. O' then falls on O. Stick a pin into the shapes at the point O. Now, turn the transparent shape in the clockwise direction.



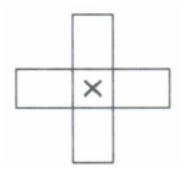
How many times do the shapes coincide in one full round?

188) Draw two identical parallelograms, one ABCD on a piece of paper and other A' B' C' D' on a transparent sheet. Mark the points of intersection of their diagonals O and O', respectively. Place the parallelograms such that A' lies on A, B' lies on B and so on. O' then falls on O. Stick a pin into the shapes at the point O. Now, turn the transparent shape in the clockwise direction.



What is the order of rotational symmetry?

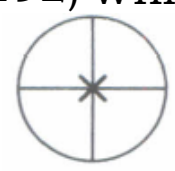
189) Give the order of the rotational symmetry of the given figures about the point marked x.



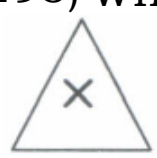
190) Give the order of the rotational symmetry of the given figures about the point marked x.

191) Give the order of the rotational symmetry of the given figures about the point marked x.

192) Which of the following figure have rotational symmetry of order more than 1?

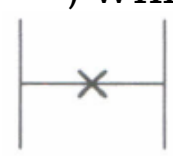


193) Which of the following figure have rotational symmetry of order more than 1?



194) Which of the following figure have rotational symmetry of order more than 1?

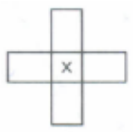
195) Which of the following figure have rotational symmetry of order more than 1?



196) Which of the following figures have rotational symmetry of order more than 1?

197) Which of the following figure have rotational symmetry of order more than 1?

198) In the given figure, find the order of rotational symmetry.

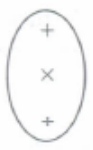


199) Give an example of a figure having a line of symmetry but does not possess rotational symmetry.

200) Copy the diagram and show the resultant figure after rotating 270°, clockwise.

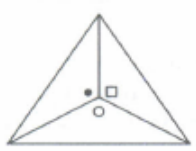
201) Determine the order of rotation of the following figure:

202) Find the order of rotational symmetry of the following figures:



203) Find the order of rotational symmetry of the following figures:

204) Determine the resultant figure after retaining the given figure at 240°.



205) Show the required steps to rotate the given figure such that it fits onto itself.

206) Name any two figures that have both line symmetry and rotational symmetry.

207) Draw, wherever possible, a rough sketch of a triangle with both line and rotational symmetries of order more than 1.

208) Draw, wherever possible, a rough sketch of a triangle with only line symmetry and no rotational symmetry of order more than 1.

209) Draw, wherever possible, a rough sketch of a quadrilateral with a rotational symmetry of order more than 1, but not a line symmetry.

210) Draw, wherever possible, a rough sketch of a quadrilateral with line symmetry, but not a rotational symmetry of order more than 1.

211) If a figure has two or more lines of symmetry, should it have rotational symmetry of order more than 1?

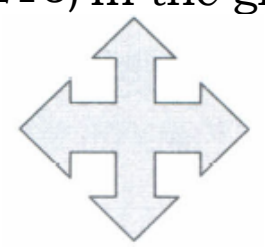
212) Name the quadrilateral which have both line and rotational symmetry of order more than 1.

213) After rotating by 60° about a centre, a figure looks exactly the same as its original position. At what other angles will this happen for the figure?

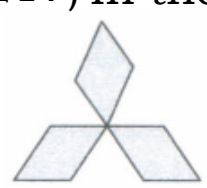
214) Can we have a rotational symmetry of order more than 1 whose angle of rotation is 45°?

215) Can we have a rotational symmetry of order more than 1 whose angle of rotation is 17°?

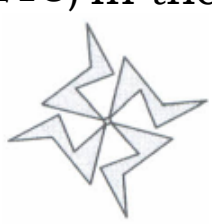
216) In the given figure, find the line of symmetry and rotational symmetry angle.



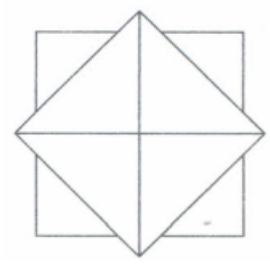
217) In the given figure, find both line of symmetry and rotational symmetry angle.



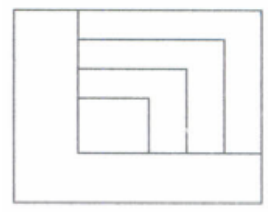
218) In the given figure, find both line of symmetry and rotational symmetry angle.



219) Determine the line of symmetry and rotational symmetry, if any, of the following figure.

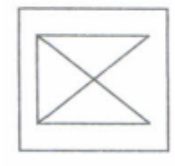


220) Joseph is asked to cut the given figure in such a way that it focus two similar images. Determine how he will cut the figure accordingly.



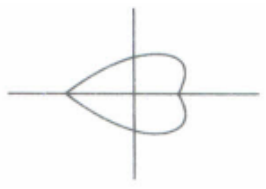
Also, find the order of rotational symmetry of the above figure.

221) Determine the line of symmetry of the following figure, if any.



222) Name any four figures, which have same number of lines of symmetry and order of rotational symmetry.

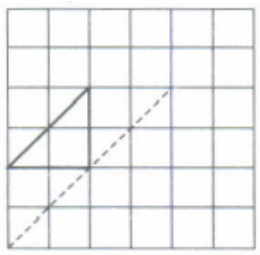
223) List any three letters, which have number of lines of symmetry and order of rotational symmetry equal to 2.

224) 

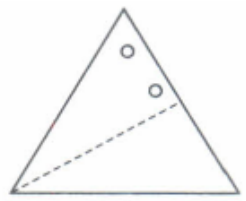
For the above given figure, draw the line of symmetry and find the order of rotational symmetry.

225) In an Art class, students are asked to draw the mirror image of the word written on board. What will be the correct image for the question?

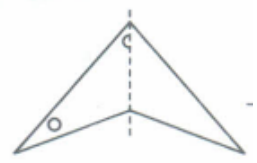
226) Copy the diagram and complete the shape so that it would be symmetric about the mirror lines.



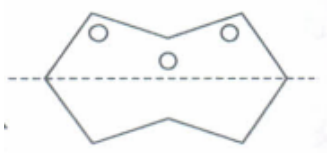
227) Given the lines of symmetry, find the other holes.



228) Given the lines of symmetry, find the other holes



229) Given the lines of symmetry, find the other holes



230) Determine the final figure obtained flow the following steps.

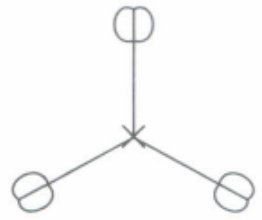
231) Find the line of symmetry in the following figure.

232) Draw the mirror image of English letter E.

233) Draw the mirror image of the following figure.

234) Draw the maximum number of lines of symmetry in an equilateral triangle.

235) Give the order of the rotational symmetry of the given figure.



236) Copy the image and draw the corresponding mirror image of it.

237) List the letters of alphabet having same mirror image

238) Name the quadrilaterals, which have both line and rotational symmetry of order more than 1.

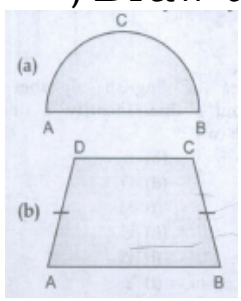
239) How many lines of symmetry are there in an equilateral triangle?

240) How many lines of symmetry are there in a regular pentagon?

241) If a figure has two or more lines of symmetry, should it have rotational symmetry?

242) Can we have a rotational symmetry whose angle of rotation is
(i)45^0 (ii)17^0?

243) Draw the line of symmetry for the given shapes:



244) Does a kite has a line of symmetry, if yes show it ?

245) What other names can be given to the line of symmetry of:
(a) An isosceles triangle?
(b) A circle?

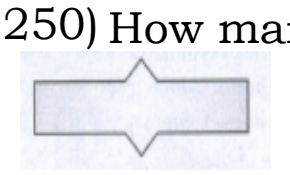
246) State the number of lines of symmetry for the following:
(a) A regular hexagon
(b) A parallelogram.

247) Does every trapezium have a line of symmetry? If any, show it

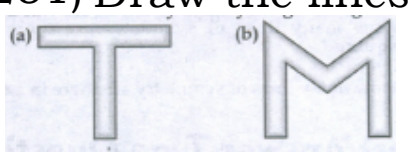
248) State about the rotational symmetry of a square.

249) Does an isosceles triangle has a line of symmetry.If any, show it.

250) How many lines of symmetry does the given figure have? Draw these lines.



251) Draw the lines of symmetry for given figures:



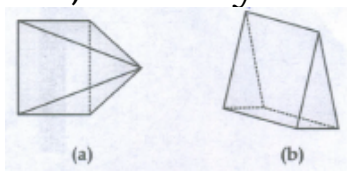
252) Following letters of English alphabet are symmetrical about a line. Identify, a line of symmetry in each case
(a) A
(b) B
(c) C
(d) D
(e) E
(f) M
(g) T
(h) U
(i) V
(j) W
(k) X
(l) Y

253) Each of the following letters from English alphabet has two lines of symmetry. Identify lines of symmetry in each case.
a) H (b)I (c)O

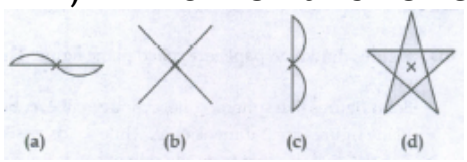
254) Draw all the lines of symmetry for the following letters if they exit.

255) State whether the figure shows rotational symmetry. If yes, then what is the order of rotational symmetry?

256) Identify the following figures:



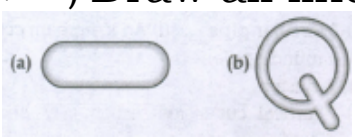
257) Which of the following shapes have rotational symmetry about the marked point?



258) Name the quadrilateral which have both line and rotational symmetry of order more than 1.

259) After rotating by 60°about a centre, a figure looks exactly the same as its original position. At what other angles will this happen for the figure?

260) Draw all lines of symmetry for each of the following figures.

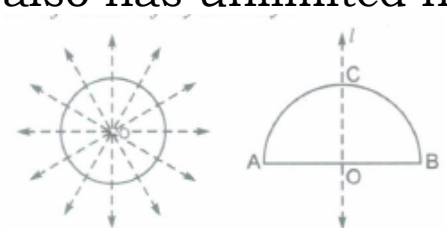


261) What is rotational symmetry and what is the order of rotational symmetry?

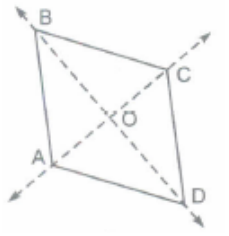
262) Illustrate the rotation of an equilateral triangle and find its order of rotational order.

263) Find the order of the rotational symmetry of a square.

264) A circle is symmetrical about each one of its diameters as shown in the following figure and therefore, it has an unlimited number of lines of symmetry. Does a semi-circle also has unlimited number of lines of symmetry?



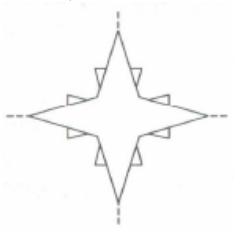
265) The figure given below is rhombus. It is symmetrical about each one of its diagonals, i.e. there are two lines of symmetry for rhombus. How many lines of symmetry can there be in a kite?



24 x 3 = 72

266) State the number of lines of symmetry for the following figures.
(a) An equilateral triangle
(b) An isosceles triangle
(c) A scalene triangle
(d) A square
(e) A rectangle
(f) A rhombus
(g) A parallelogram
(h) A quadrilateral
(i) A regular hexagon
(j) A circle

267) In the following figure, show both line of symmetry and rotational symmetry.

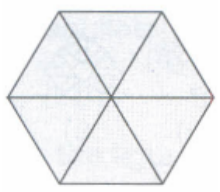


268) Some of the English alphabets have fascinating symmetrical structures. Which capital letters have just one line of symmetry (like E)? Which capital letters have a rotational symmetry of order 2 (like I)? .By attempting to think on such lines, you will be able to fill in the following table.

ALPHABET LETTERS	LINE SYMMETRY	NUMBER OF LINES OF SYMMETRY	ROTATIONAL SYMMETRY	ORDER OF ROTATIONAL SYMMETRY
Z	No	0	Yes	2
S				
H	Yes		Yes	
O	Yes		Yes	
E	Yes			
N			Yes	
C				

269) Given here is a figure of a few folded sheet and designs drawn about the fold. Draw a rough diagram of the complete figure that would be seen, when the design is cut off.

270) State the order of rotation and angle of rotation of the following figure.



271) State the order of rotation and angle of rotation of the following figure.

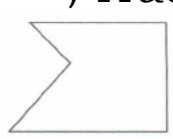
272) State the order of rotation and angle of rotation of the following figure.

273) Draw all lines of symmetry for each of the following figure.

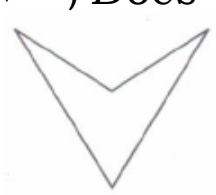
274) Draw all lines of symmetry for each of the following figure.

275) Trace each figure. Then, draw all lines of symmetry, if it has.

276) Trace each figure. Then, draw all lines of symmetry, if it has.



277) Does the following figure have rotational symmetry?



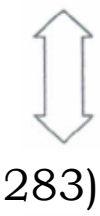
278) Draw all lines of symmetry for each of the following figures as given below.

279) Draw all lines of symmetry for each of the following figures as given below.

280) Draw all lines of symmetry for each of the following figures as given below.

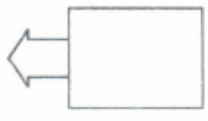
281) Draw all the symmetry lines for the following figures.

282) Draw all the symmetry lines for the following figures.

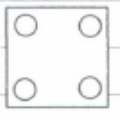


283) Draw all the symmetry lines for the following figures.

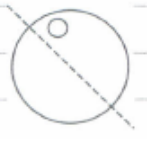
284) Draw all the symmetry lines for the following figures.



285) Copy the following figure with punched holes and find the axes of symmetry for the following



286) Given the line of symmetry, find the other hole.



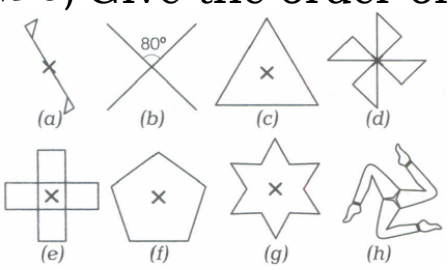
287) State the number of lines of symmmetry in rectangle.

288) What other name can you give to the line of symmetry of an isosceles triangle?

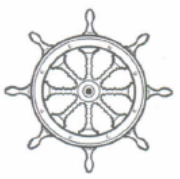
289) What other name can you give to the line of symmetry of a circle?

11 x 5 = 55

290) Give the order of rotational symmetry for each figure.

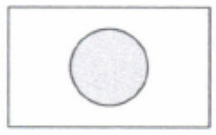


291) In the following figure, show if possible both line and rotational symmetry.



292) In the following figure, show if possible both line and rotational symmetry.

293) The flag of Japan is shown below. How many lines of symmetry does the flag have?



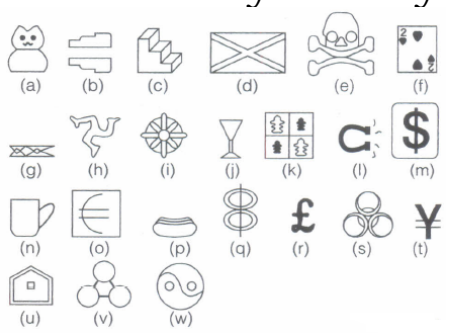
294) Does the figure have rotational symmetry?

295) Draw all the lines of symmetry for the following letters if they exist.

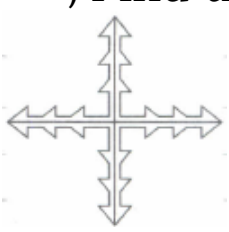
A B S O

296) State whether the figure shows rotational symmetry. If yes, then what is the order of rotational symmetry?

297) In each of the following figures, write the number of lines of symmetry and order of rotational symmetry.



298) Find the number of lines of symmetry and order of symmetry of the following figure.



299) In the following figure, the mirror line (i.e. line of symmetry) is given as a dotted line. Complete the figure performing reflection in the dotted line. Are you able to recall the name of the figure you complete?

300) Draw the line of symmetry of the given figure below and also determine the order of rotational symmetry.

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