

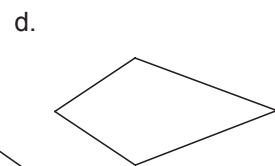
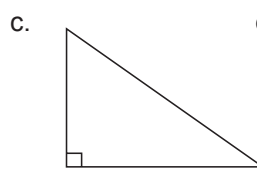
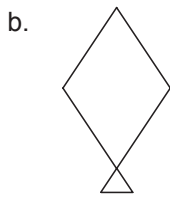
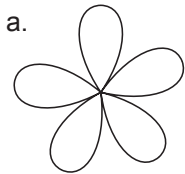
Worksheet

- Choose the correct option.
 - A rectangle has _____ line(s) of symmetry.
 - one
 - two
 - four
 - three
 - Which of the following figures has only one line of symmetry?
 - A rectangle
 - A parallelogram
 - An isosceles trapezium
 - A circle
 - A rhombus has _____ of symmetry.
 - no line
 - one line
 - four lines
 - two lines

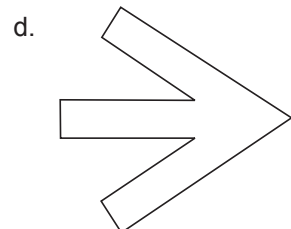
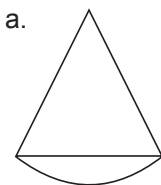
- Fill in the blanks.

- A _____ divides a figure into two congruent halves.
- Reflection symmetry is also known as _____.
- A regular octagon has _____ lines of symmetry.

- Draw all the possible lines of symmetry in each case.



- Find the coordinates of the following points under reflection on X-axis.
 - (2, 5)
 - (-7, 0)
 - (3, -6)
- Find the reflection of the following points on Y-axis.
 - (10, 8)
 - (5, -7)
 - (-4, 0)
- Plot the points E(3, -7) and F(4, 5) on the graph paper. Reflect the line segment EF on the Y-axis to E'F'. Write down the coordinates of E' and F'. Are EF and E'F' equal?
- A point M (3,4) is rotated about the origin through 180° to the point M'. Write down the coordinates of M'.
- Draw the image of a line segment IJ reflected on X-axis where the coordinates are I(-4, 5) and J(6, 8).
- How many lines of symmetry does a circle have?
- Draw all possible lines of symmetry in the following figures.



11. Find the image of a point $S(4, 0)$ when it is rotated through the following angles in clockwise direction.
 a. 90° b. 180° c. 270° d. 360°
12. Find image of a rectangle $OPQR$ when rotated about O through the following angles in anticlockwise direction.
 a. 90° b. 180° c. 270° d. 360°
13. The vertices of a triangle are $A(2, 5)$, $B(4, 0)$ and $C(-2, -4)$. Find the coordinates of $A' B' C'$ which is the image of the vertices of triangle ABC under the following reflections.
 a. X-axis b. Y-axis

Answers to Worksheet

1. a. ii b. iii c. iv
2. a. line of symmetry b. mirror symmetry c. eight
3. a. 5 lines b. one c. no d. one
4. a. $(2, -5)$ b. $(-7, 0)$ c. $(3, 6)$
5. a. $(-10, 8)$ b. $(-5, -7)$ c. $(4, 0)$
6. $(-3, -7)$, $(-4, 5)$; yes 7. $(-3, -4)$ 9. Infinite
11. a. $(0, -4)$ b. $(-4, 0)$ c. $(0, 4)$ d. $(4, 0)$
13. a. $A'(2, -5)$, $B'(4, 0)$, $C'(-2, 4)$ b. $A'(-2, 5)$, $B'(-4, 0)$, $C'(2, -4)$