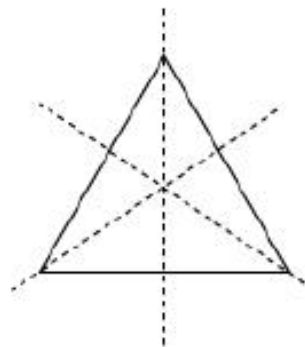**Q7.** State the number of lines of symmetry for the following figures:
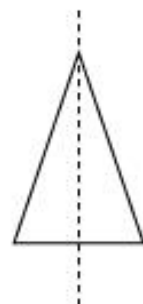
(a) An equilateral triangle

(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

Ans:

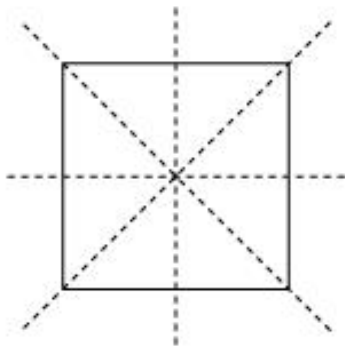(a) There are 3 lines of symmetry in an equilateral triangle.

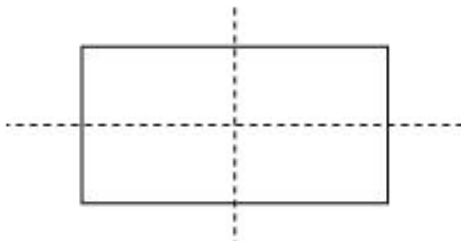(b) There is only 1 line of symmetry in an isosceles triangle.

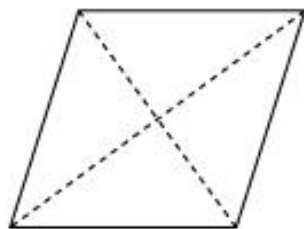(c) There is no line of symmetry in a scalene triangle.

(d)There are 4 lines of symmetry in a square.

(e) There are 2 lines of symmetry in a rectangle.

(f)There are 2 lines of symmetry in a rhombus.
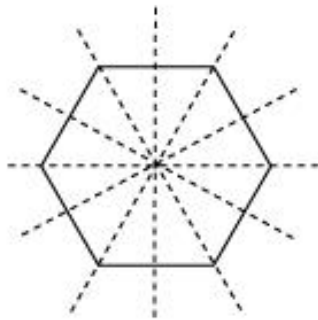
(g) There is no line of symmetry in a parallelogram.

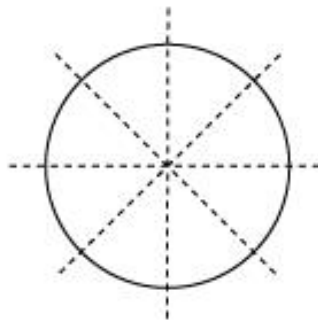(h) There is no line of symmetry in a quadrilateral.

(i) There are 6 lines of symmetry in a regular hexagon.

(j)There are infinite lines of symmetry in a circle. Some of these are represented as follows.

Q8. What letters of the English alphabet have reflectional symmetry (i.e., symmetry related to mirror reflection) about.
(a) a vertical mirror

(b) a horizontal mirror

(c) both horizontal and vertical mirrors

Ans:

(a) A, H, I, M, O, T, U, V, W, X, Y are the letters having a reflectional

symmetry about a vertical mirror.

OTU

VWX

Y
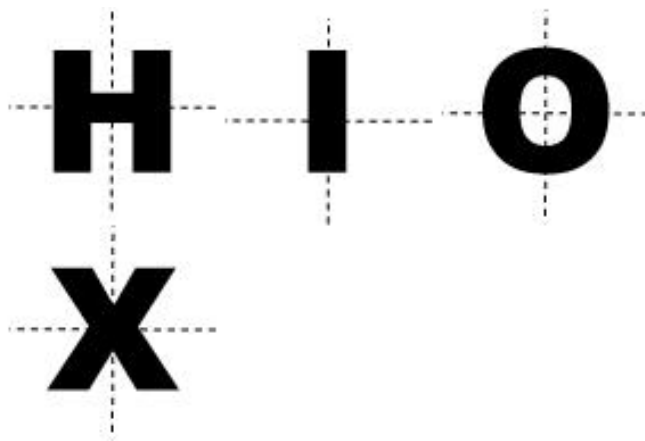
(b) B, C, D, E, H, I, K, O, X are the letters having a reflectional symmetry about a horizontal mirror.

B C D

E H I

K O X

(c) H, I, O, X are the letters having a reflectional symmetry about both the vertical mirror and the horizontal mirror.

H I O
X

Q9. Give three examples of shapes with no line of symmetry.

Ans:

A scalene triangle, a parallelogram, and a trapezium do not have any line of symmetry.
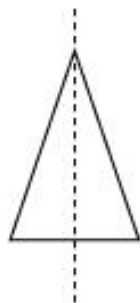
Q10. What other name can you give to the line of symmetry of
(a) an isosceles triangle?
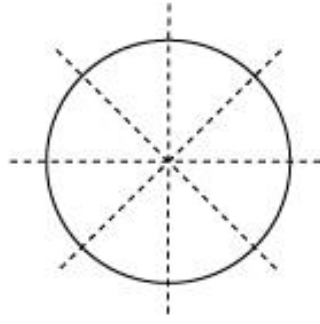
(b) a circle?

Ans:

(a) An isosceles triangle has only 1 line of symmetry.

Therefore, this line of symmetry is the median and also the altitude of this isosceles triangle.

(b) There are infinite lines of symmetry in a circle. Some of these are represented as follows.

It can be concluded that each line of symmetry is the diameter for this circle.

********** END *********