

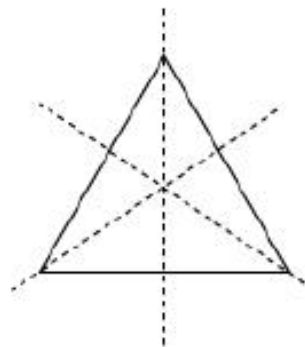


Q7. State the number of lines of symmetry for the following figures:

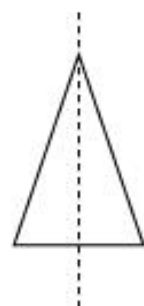
- (a) An equilateral triangle
- (b) An isosceles triangle
- (c) A scalene triangle
- (d) A square
- (e) A rectangle
- (f) A rhombus
- (g) A parallelogram
- (h) A quadrilateral
- (i) A regular hexagon
- (j) A circle

Ans:

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



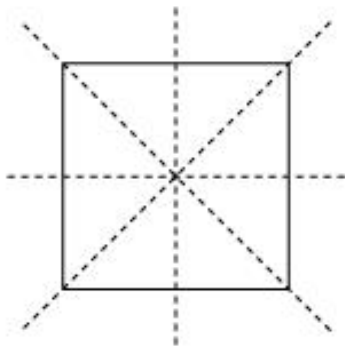
(b) There is only 1 line of symmetry in an isosceles triangle.



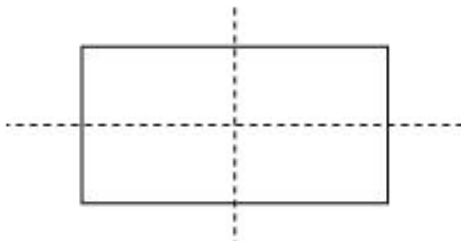
(c) There is no line of symmetry in a scalene triangle.



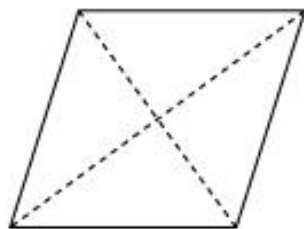
(d) There are 4 lines of symmetry in a square.



(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.

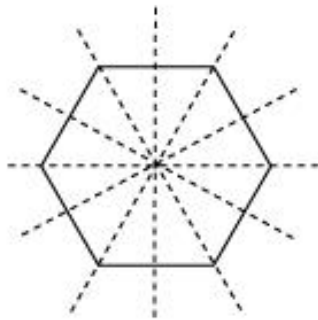


(h) There is no line of symmetry in a quadrilateral.

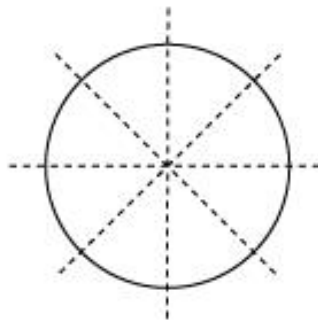




(i) There are 6 lines of symmetry in a regular hexagon.



(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.



O T U

V W X

Y

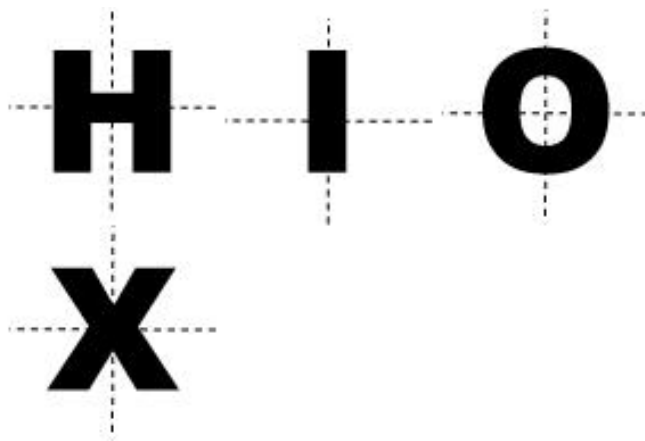
(b) B, C, D, E, H, I, K, O, X are the letters having a reflectional symmetry about a horizontal mirror.

B C D

E H I

K O X

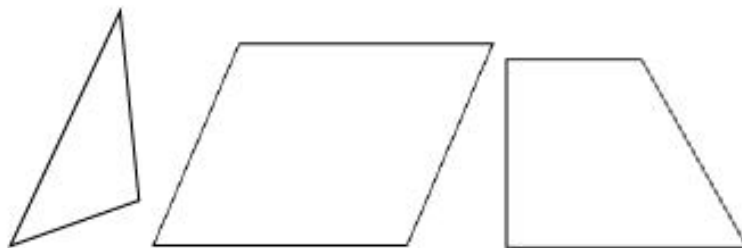
(c) H, I, O, X are the letters having a reflectional symmetry about both the vertical mirror and the horizontal mirror.



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.

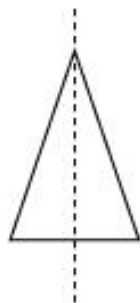


Q10. What other name can you give to the line of symmetry of
(a) an isosceles triangle?

(b) a circle?

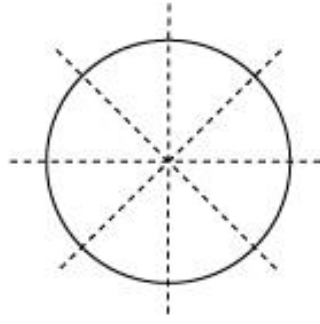
Ans:

(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.

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