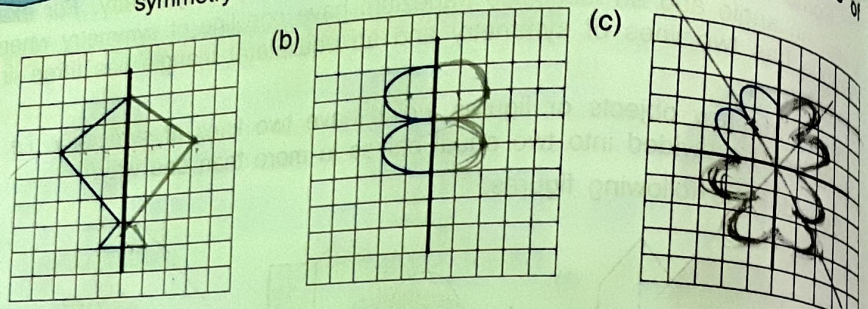
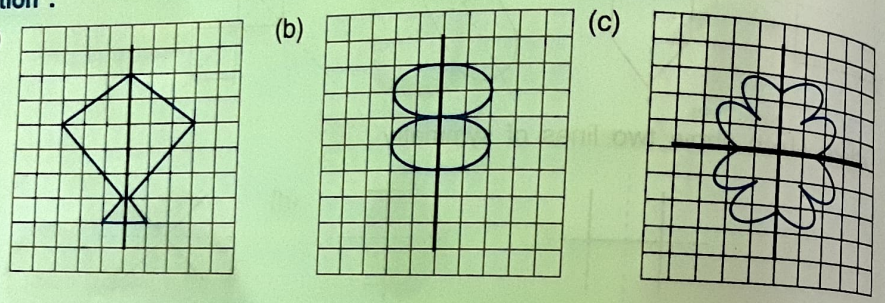
symmetry in each

(a) (b) (c)



Solution :

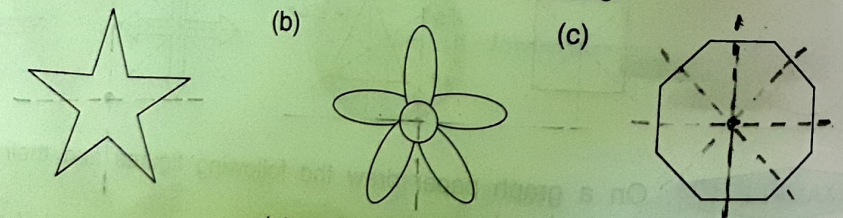
(a) (b) (c)



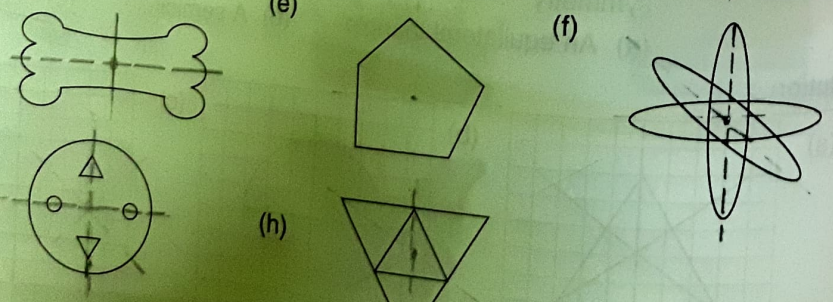
EXERCISE 15(D)

1 Draw all possible lines of symmetry in each of the following.

(a) (b) (c)



(d) (e) (f)



(g) (h)

2 Draw the geometrical figure mentioned below and write the number of lines of symmetry possible for each.

(a) Rectangle 2 lines (b) Equilateral triangle 3 lines

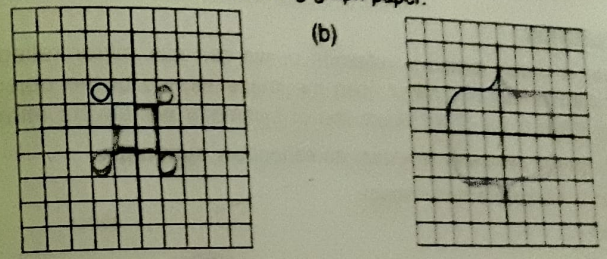
(c) Scalene triangle 0 lines (d) Isosceles triangle 1 line

(e) Trapezium 0 lines (f) Square 4 lines

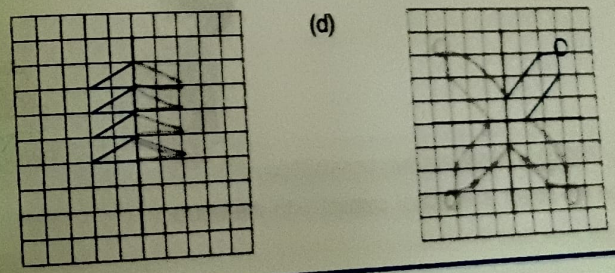
(g) Parallelogram 0 lines (h) Semicircle 1 line

3 Complete the following figures using graph paper.

(a) (b)

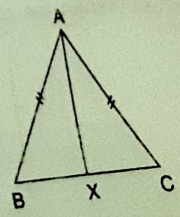


(c) (d)



Let us now understand the symmetry of triangles.

The line of symmetry in a triangle is a line segment joining a vertex to the mid-point of the side opposite to that vertex. This line segment is called a **median** and it divides one side of the triangle in two equal parts. Let us consider the following triangle.



$\triangle ABC$ is an isosceles triangle.

$AB = AC$

AX is a line segment joining the vertex A to the mid-point of the side opposite to $\angle A$ *i.e.* BC

Since $BX = XC$, AX is the median of the triangle.