Q1. Find the number of lines of symmetry for each of the following shapes:
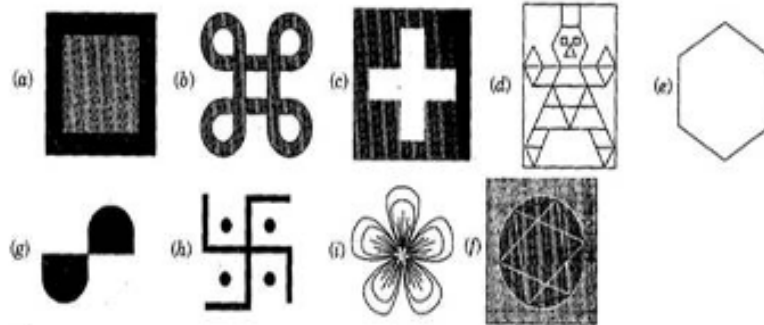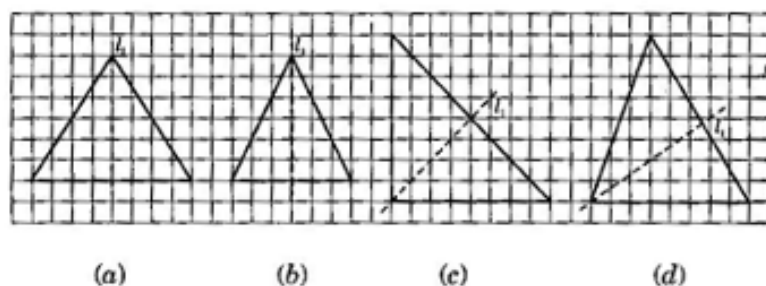
Ans: (a) 4, (b) 4, (c) 4, (d) 1, (e) 6, (f) 4, (g) 0, (h) 0, (i) 3

Q2. Copy the triangle in each of the following figures, on squared paper. In each case, draw the line(s) of symmetry. If any and identity the type of triangle. (Some of you may like to trace the figures and try paper-folding first!)
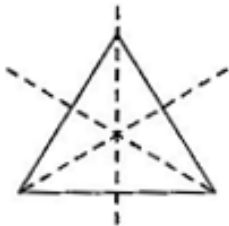
Ans:

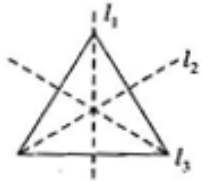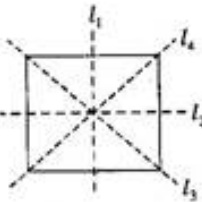(a)   (b)   (c)   (d)
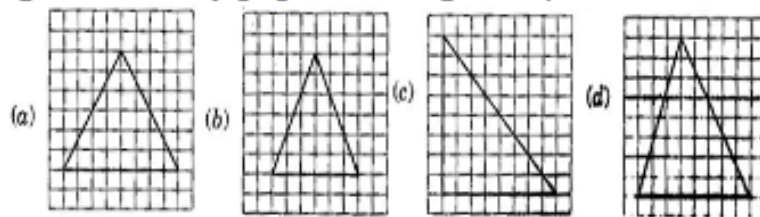
(a) l_1 is the line of symmetry.
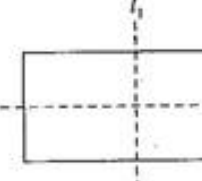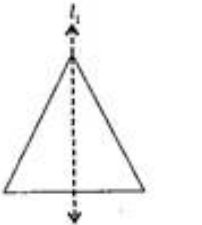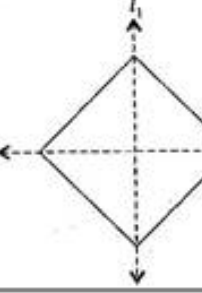(b) l_1 is the line of symmetry.
(c) l_1 is the line of symmetry.
(d) No line of symmetry.

Q3. Complete the following table:

Shape	Rough figure	No. of lines of symmetry
Equilateral triangle		3

Shape		
Square		
Rectangle		
Isosceles triangle		
Rhombus		
Circle		

Ans:

Shape	Rough figure	No. of lines of symmetry
Equilateral triangle		3
Square		4
Rectangle		2
Isosceles triangle		1
Rhombus		2
Circle		Infinite

Q4. Can you draw a triangle which has:

(a) exactly one line of symmetry?
(b) exactly two lines of symmetry?
(c) exactly three lines of symmetry?
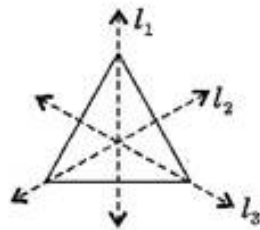(d) no lines of symmetry?
Sketch a rough figure in each case.
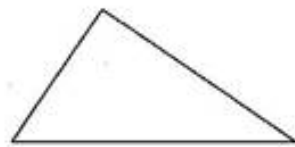
Ans: (a) Yes, Isosceles triangle
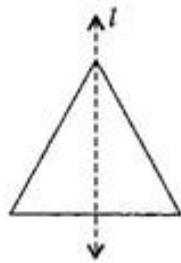
(b) No such triangle cannot be formed.

(c) Yes, Equilateral triangle

(d) Yes, Scalene triangle

Q5. On a squared paper, sketch the following:

(a) A triangle with a horizontal line of symmetry but no vertical line of symmetry.
(b) A quadrilateral with both horizontal and vertical lines of symmetry.
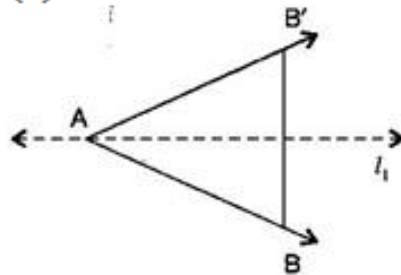(c) A quadrilateral with a horizontal line of symmetry but no vertical line of symmetry.
(d) A hexagon with exactly with two lines of symmetry.
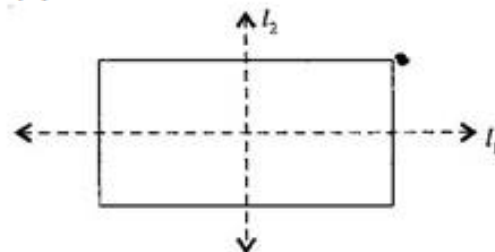(e) A hexagon with six lines of symmetry.
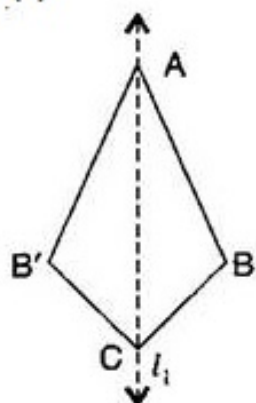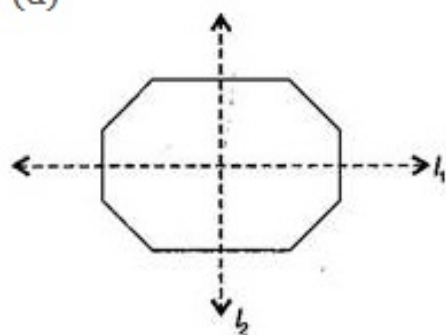(**Hint**: It will be helpful if you first draw the lines of symmetry and then complete the figures)
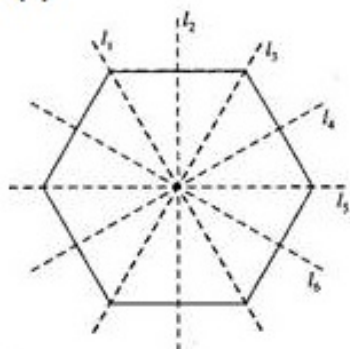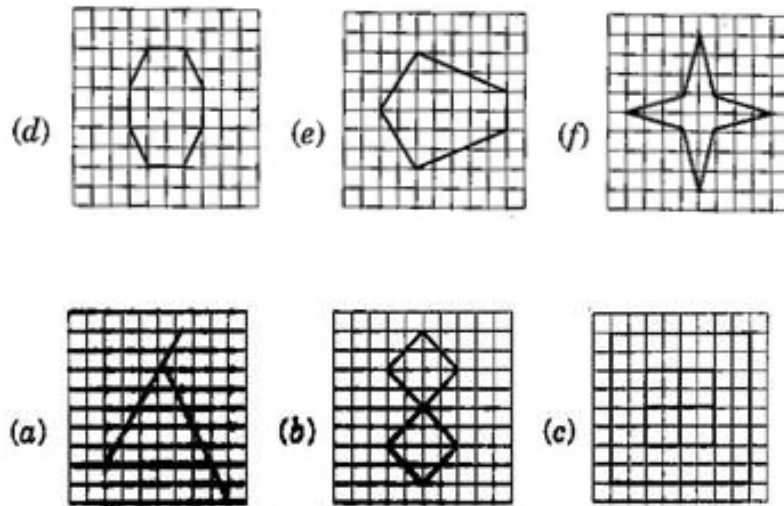**Ans:**
(a)

(b)

(c)

(d)

(e)

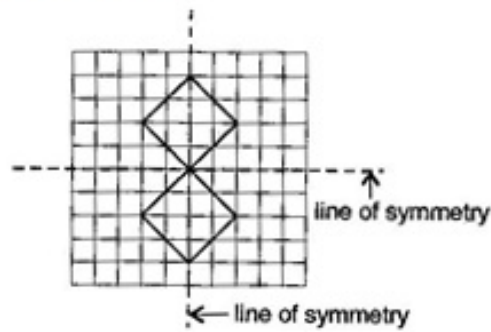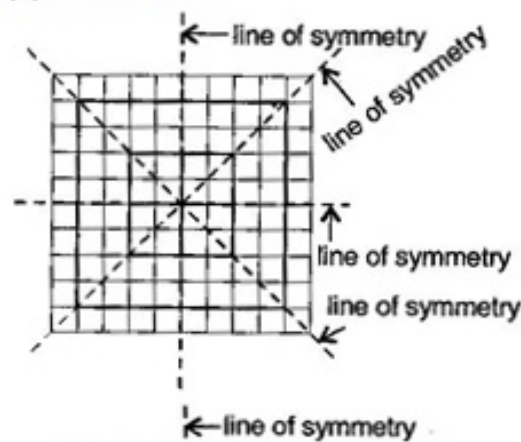**Q6.** Trace each figure and draw the lines of symmetry, if any:

(d)

(e)

(f)

(a)

(b)

(c)

Ans:

(a) No line

(b) Two lines

line of symmetry

←— line of symmetry

(c) Four lines

←— line of symmetry

line of symmetry

line of symmetry

line of symmetry

←— line of symmetry

(d) Two lines
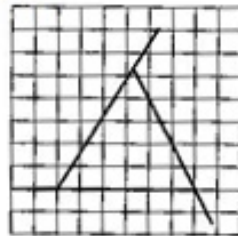
← line of symmetry

line of symmetry
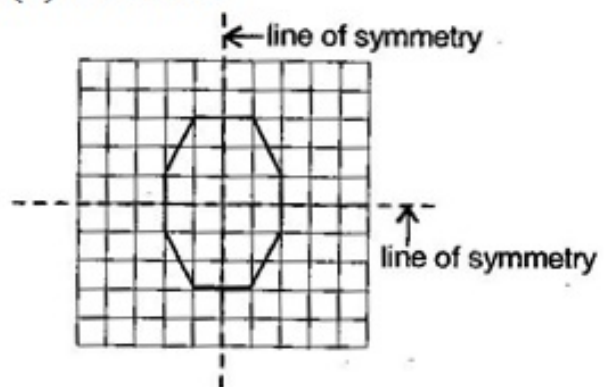
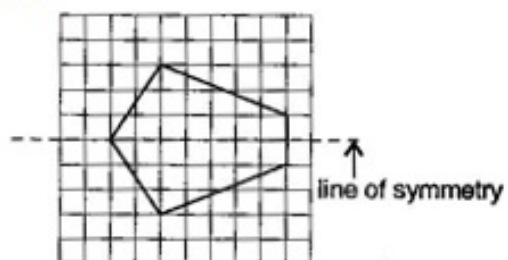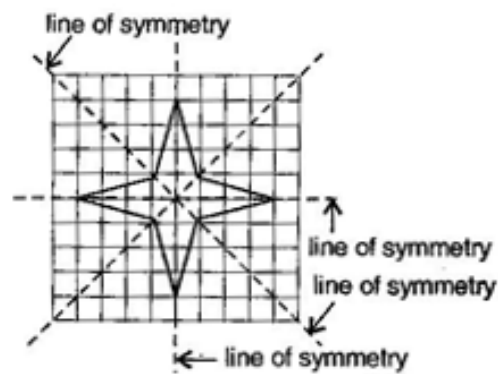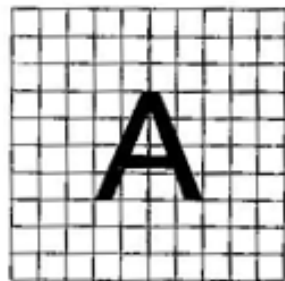**(e) One line**

line of symmetry

(f)

Q7. Consider the letters of English alphabets A to Z. List among them the letters which have:
(a) vertical lines of symmetry (like A)
(b) horizontal lines of symmetry (like B)
(c) no lines of symmetry (like Q)

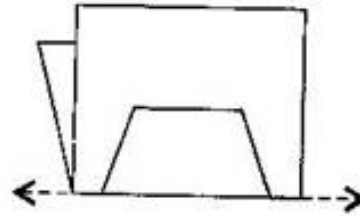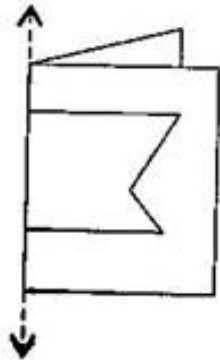**Ans:**
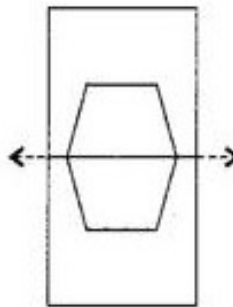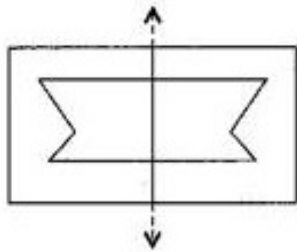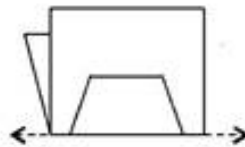Vertical lines: A, H, I, M, O, T, U, V, W, X, Y

Horizontal lines: B, C, D, E, H, I, K, O, X

No line of symmetry: F, G, J, I, N, P, Q, R, S, Z

Q8. Given here are figures of a few folded sheets and designs drawn about the fold. In each case, draw a rough diagram of the complete figure that would be seen when the design is cut off.

Ans: