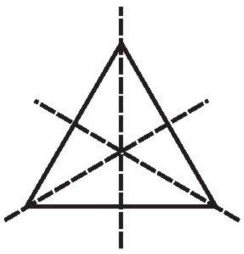
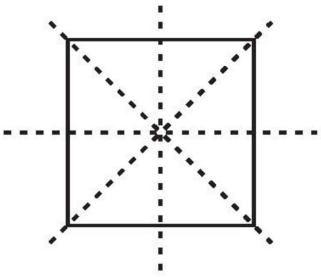
PRACTICE QUESTIONS
CLASS VI: CHAPTER - 13
SYMMETRY

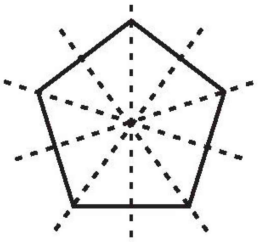
1. Find the number of lines of symmetry of the following figures:



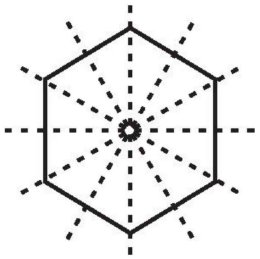
Equilateral Triangle



Square

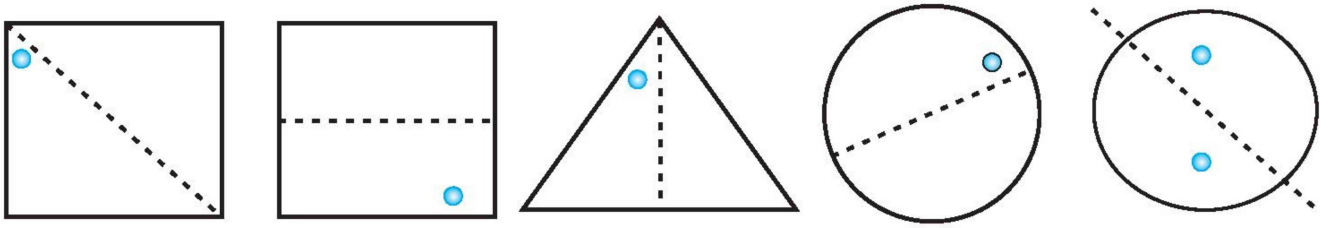


Regular Pentagon

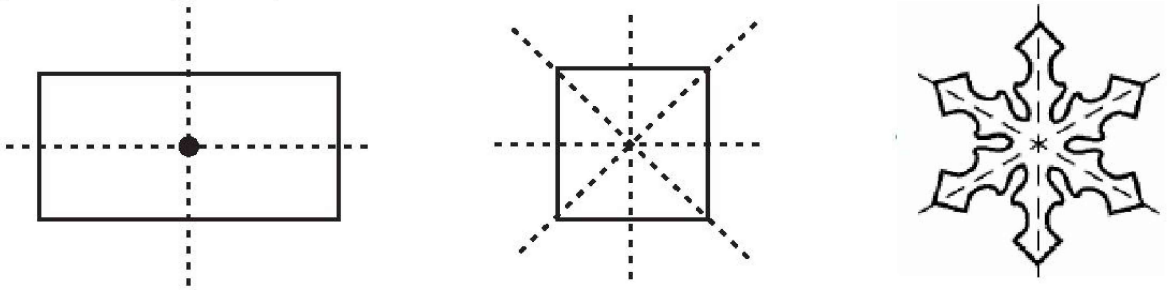


Regular Hexagon

2. Given the line(s) of symmetry, find the other hole(s):

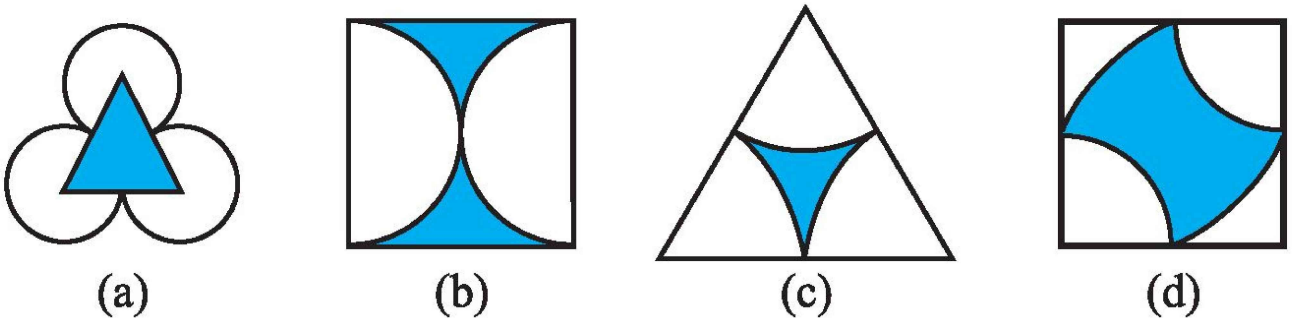


3. The following figures have more than one line of symmetry. Such figures are said to have multiple lines of symmetry.

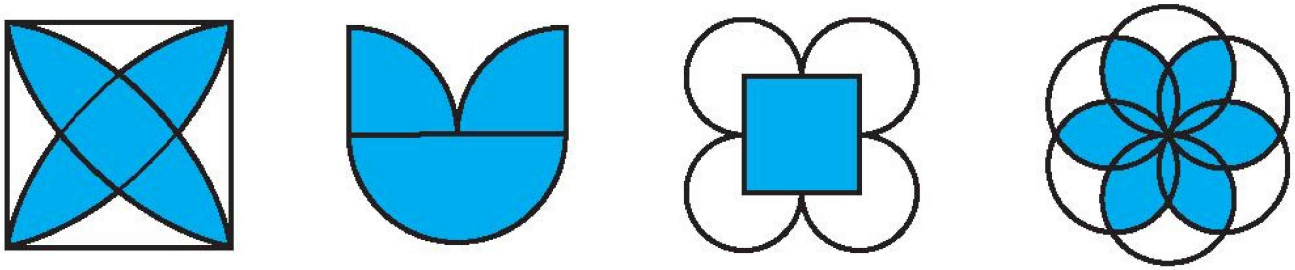


(a) (b) (c)

Identify multiple lines of symmetry, if any, in each of the following figures:

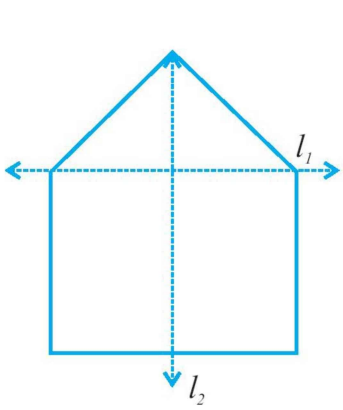


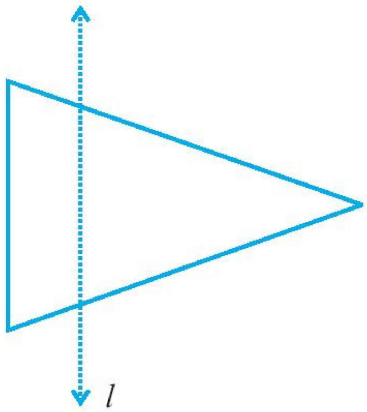
(a) (b) (c) (d)



(e) (f) (g) (h)

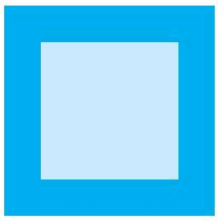
4. For the given below left figure, which one is the mirror line, l_1 or l_2?

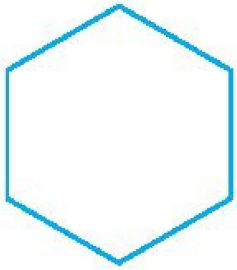


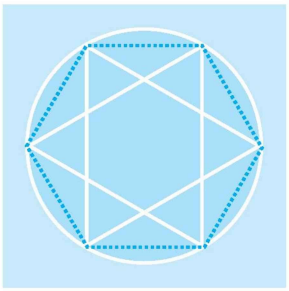


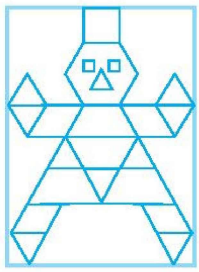
5. In the above sided right figure, l is the line of symmetry. Draw the image of the triangle and complete the diagram so that it becomes symmetric.

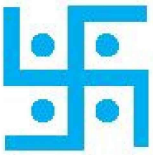
6. Find the number of lines of symmetry for each of the following shapes :

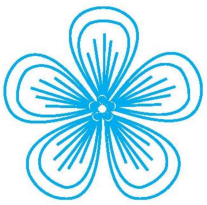




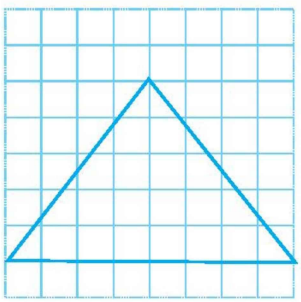


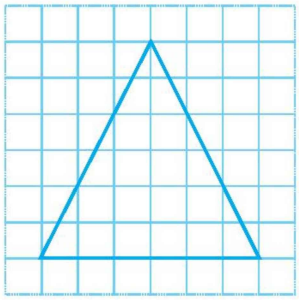


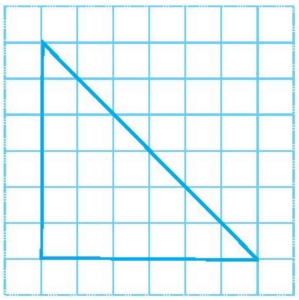


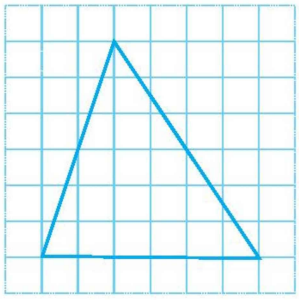


7. Copy the triangle in each of the following figures on squared paper. In each case, draw the line(s) of symmetry, if any and identify the type of triangle. (Some of you may like to trace the figures and try paper-folding first!)





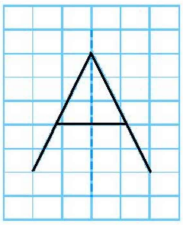




8. State the number of lines of symmetry for the following figures:
(a) An equilateral triangle (b) An isosceles triangle (c) A scalene triangle (d) A square
(e) A rectangle (f) A rhombus (g) A parallelogram (h) A quadrilateral (i) A regular hexagon
(j) A circle

9. 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

10. 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)

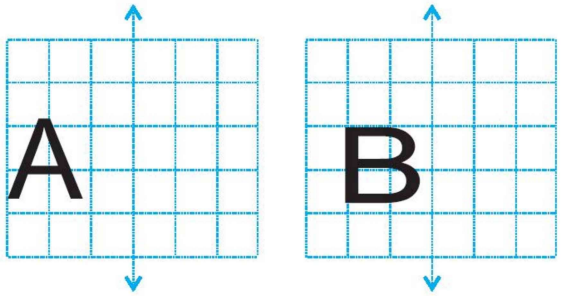


11. On a squared paper, sketch the following:
(a) A triangle with a horizontal line of symmetry but no vertical line of symmetry.
(b) A quadrilateral with both horizontal and vertical lines of symmetry.
(c) A quadrilateral with a horizontal line of symmetry but no vertical line of symmetry.
(d) A hexagon with exactly two lines of symmetry.
(e) A hexagon with six lines of symmetry.

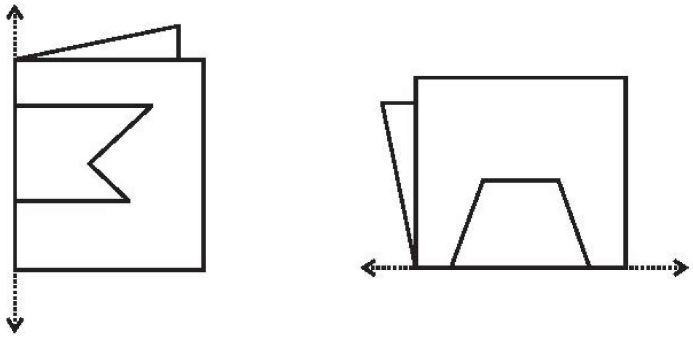
12. Complete the following table.

Shape	Rough figure	Number of lines of symmetry
Equilateral triangle		
Square		
Rectangle		
Isosceles triangle		
Rhombus		
Circle		

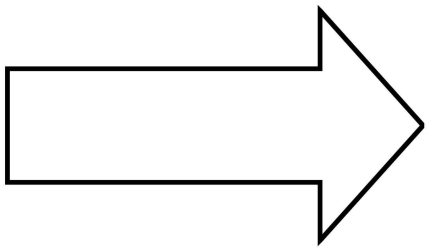
13. In each figure alongside, a letter of the alphabet is shown along with a vertical line. Take the mirror image of the letter in the given line. Find which letters look the same after reflection (i.e. which letters look the same in the image) and which do not. Can you guess why?
Try for O E M N P H L T S V X



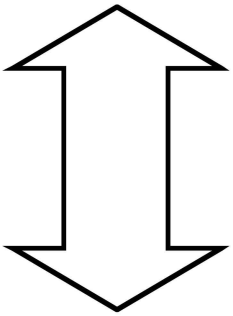
14. Given here are figures of a fewfolded sheets and designs drawn about the fold. In each case, draw a rough diagram of the complete figure that would be seen when the design is cut off.



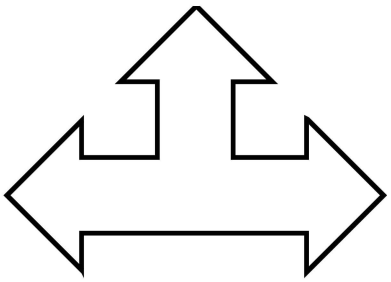
15. Find the number of lines of symmetry of the following figures:



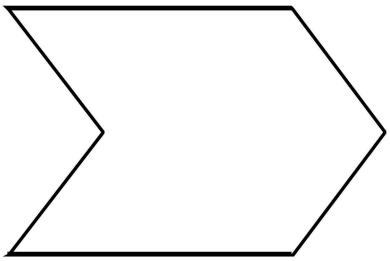
(a)



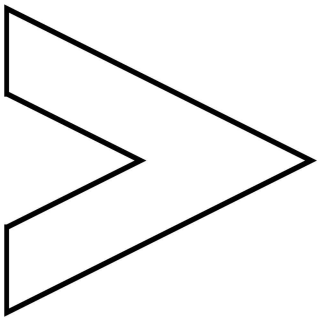
(b)



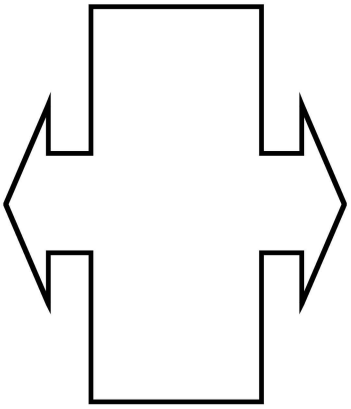
(c)



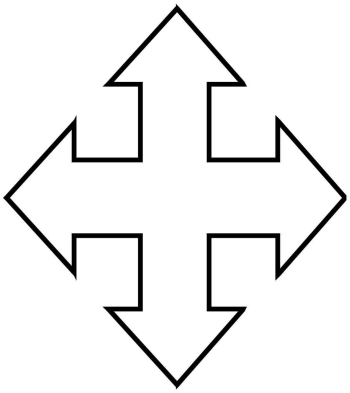
(d)



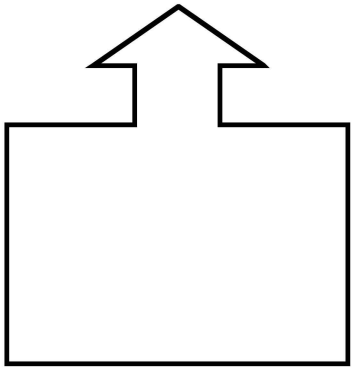
(e)



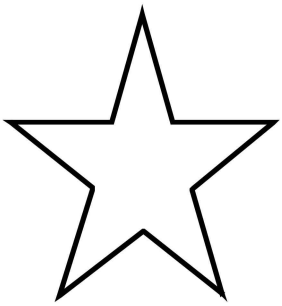
(f)



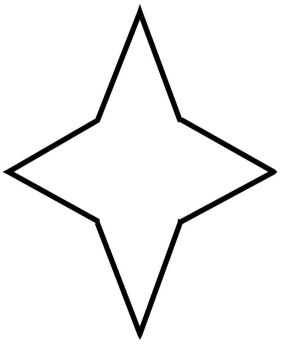
(g)



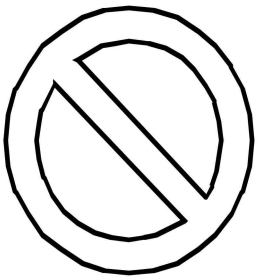
(h)



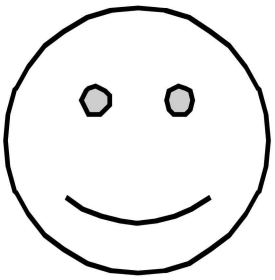
(i)



(j)



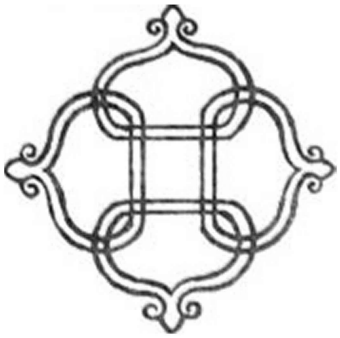
(k)



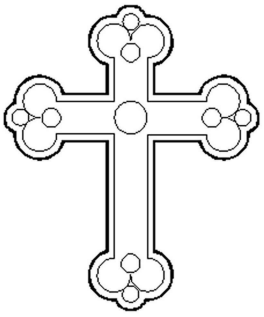
(l)

16. Find the number of lines of symmetry of the following figures:

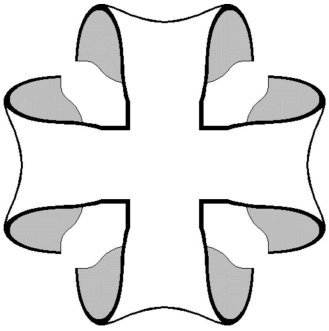
(a)



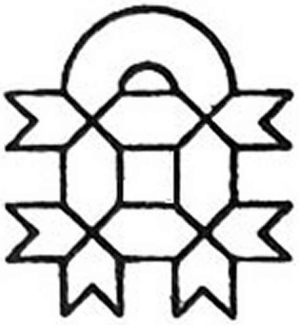
(b)



(c)



(d)



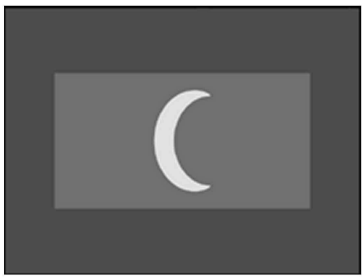
(e)

(f)

(g)

(h)

(i)



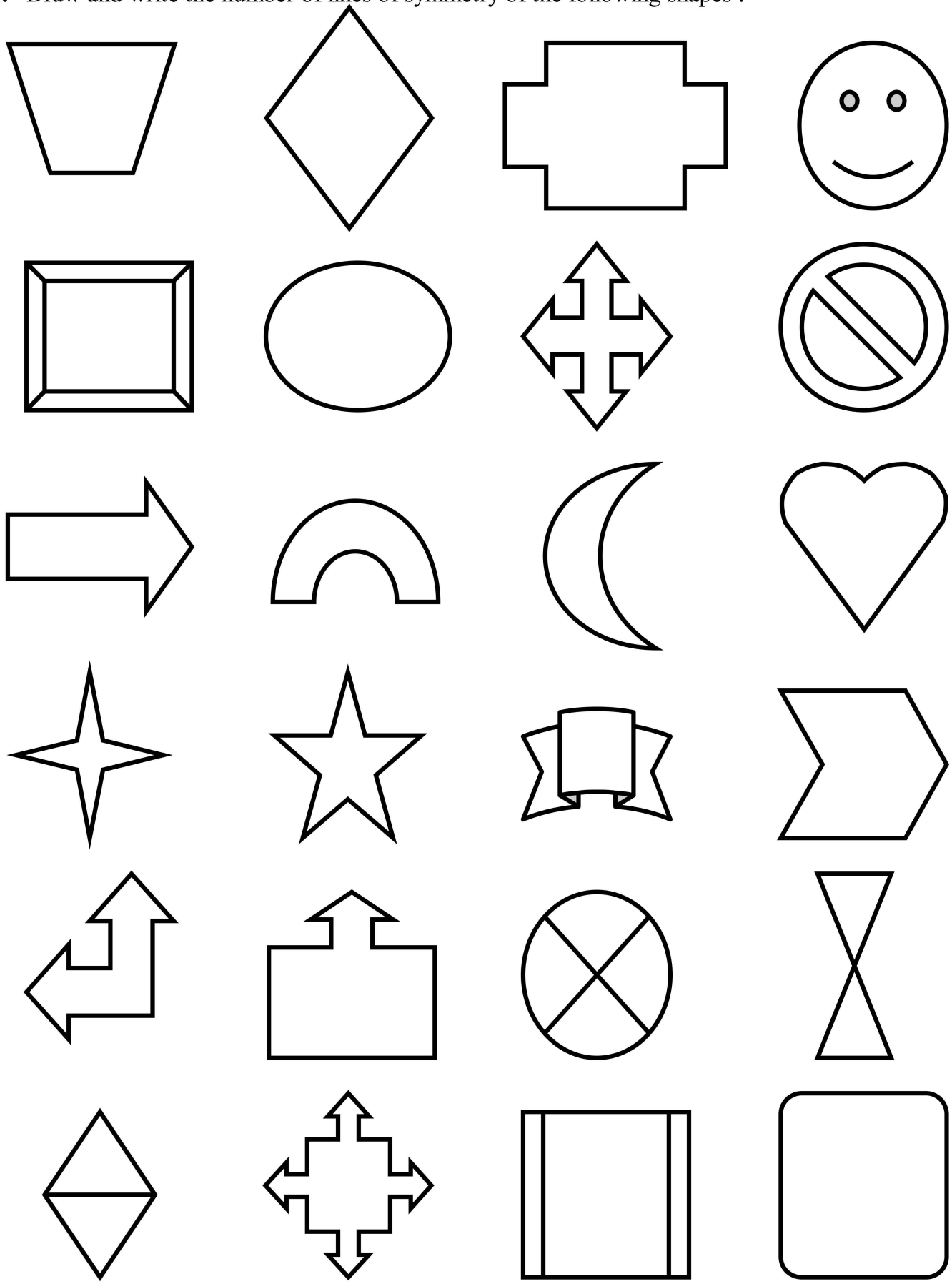
(j)

(k)

(l)

ASSIGNMENT QUESTIONS
CLASS VI: CHAPTER - 13
SYMMETRY

1. Draw and write the number of lines of symmetry of the following shapes :



2. Write all the capital letters of the English alphabets which have more than one lines of symmetry.

3. Write the letters of the word 'MATHEMATICS' which have no line of symmetry.

4. Write the letters of the word 'GEOMETRY' which have no line of symmetry.

5. Write the number of lines of symmetry in each letter of the word 'SYMMETRY'.

6. Fill in the blanks:

   - The digits having only two lines of symmetry are_____ and _____.
   - The digit having only one line of symmetry is _____.
   - The number of digits having no line of symmetry is_____.
   - The number of capital letters of the English alphabets having only vertical line of symmetry is_____.
   - The number of capital letters of the English alphabets having only horizontal line of symmetry is_____.
   - The number of capital letters of the English alphabets having both horizontal and vertical lines of symmetry is_____.
   - The number of capital letters of the English alphabets having no line of symmetry is_____.
   - The line of symmetry of a line segment is the _____ bisector of the line segment.
   - The number of lines of symmetry in a regular hexagon is _____.
   - The number of lines of symmetry in a regular polygon of n sides is_____.
   - A protractor has _____ line/lines of symmetry.

7. On a squared paper, sketch the following:

   - A triangle with a horizontal line of symmetry but no vertical line of symmetry.
   - A triangle with a vertical line of symmetry but no horizontal line of symmetry.
   - A triangle with no line of symmetry.
   - A quadrilateral with both vertical and horizontal line of symmetry.
   - A quadrilateral with a horizontal line of symmetry but no vertical line of symmetry.
   - A quadrilateral with a vertical line of symmetry but no horizontal line of symmetry.
   - A hexagon with exactly two lines of symmetry.
   - A hexagon with six lines of symmetry.

8. 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

9. 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)
   (d) vertical and horizontal lines of symmetry (like H).