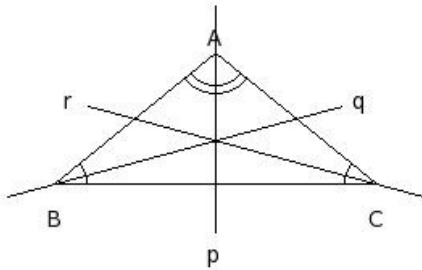1. Identify the line(s) of symmetry in the following figure

   (i) p (ii) { p, q, r } (iii) none (iv) r (v) q

2. Which of the following figures have infinite lines of symmetry?

   a) sector of a circle
   b) line segment
   c) semicircle
   d) circle
   e) n-sided polygon where n is very large

   (i) {d} (ii) {a,d} (iii) {b,d} (iv) {c,e,d}

3. Which of the following are true?

   a) If a triangle has two lines of symmetry, then it is a regular polygon.
   b) A regular polygon of n sides will have n lines of symmetry.
   c) If a polygon is not regular, it will have less number of axes of symmetry than the number of sides.
   d) If a quadrilateral has four lines of symmetry, then it is a regular polygon.
   e) Line of symmetry divides the polygon into two identical shapes.
   f) Lines of symmetry of a regular polygon are nothing but the diagonals of a regular polygon.
   g) An n-sided regular polygon has n/2 lines of symmetry if n is even.

   (i) {f,e,b} (ii) {a,b} (iii) {f,c} (iv) {b,c,d,e} (v) {g,a,d}

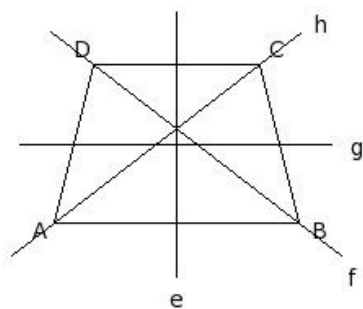4. The English alphabet letter 'O' has how many lines of symmetry?

   (i) three (ii) one (iii) zero (iv) infinite (v) two

5. Which of the following English alphabet letters have infinite lines of symmetry?

   (i) X (ii) O (iii) M (iv) I (v) K

6. Which of the following are line(s) of symmetry for the given isosceles trapezium?

(i) none (ii) e (iii) f (iv) { e, g } (v) h

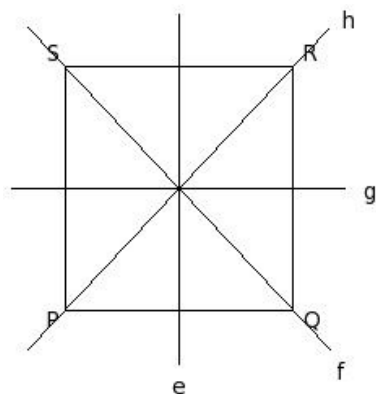7. A median is an axis of symmetry in which of the given figures?

a) right angle triangle
b) equilateral triangle
c) scalene triangle
d) isosceles right angled triangle
e) isosceles triangle

(i) {c,d} (ii) {a,b,d} (iii) {b,d,e} (iv) {a,c,e} (v) {a,b}

8. Which of the following English alphabet letters have two lines of symmetry?

(i) Z (ii) B (iii) U (iv) J (v) I

9. Which of the following are line(s) of symmetry for the given rectangle?

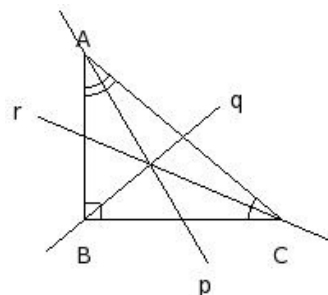(i) { f, h } (ii) { e, f, g, h } (iii) none (iv) e (v) { e, g }

10. The English alphabet letter 'X' has how many lines of symmetry?

(i) three (ii) one (iii) zero (iv) infinite (v) two

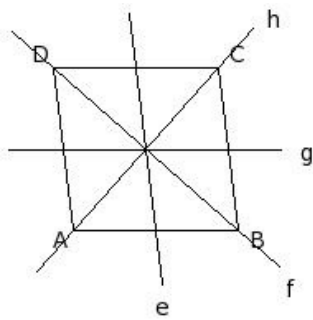11. The English alphabet letter 'F' has how many lines of symmetry?

(i) one (ii) infinite (iii) two (iv) three (v) zero

12. Identify the line(s) of symmetry in the following figure

(i) q (ii) none (iii) p (iv) { p, q, r } (v) r

13. Which of the following are line(s) of symmetry for the given rhombus?

(i) g (ii) f (iii) { e, f, g, h } (iv) { f, h } (v) h

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14. Which of the following figures have no line of symmetry?

a) equilateral triangle
b) angle with equal arms
c) angle with unequal arms
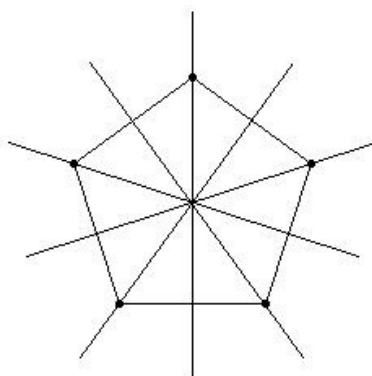d) scalene triangle
e) isosceles triangle
f) line segment

(i) {e,f,c} (ii) {a,c} (iii) {b,d} (iv) {c,d} (v) {a,d,c}

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15. Which of the following quadrilaterals have one line of symmetry?

a) square
b) rectangle
c) kite
d) rhombus
e) isosceles trapezium
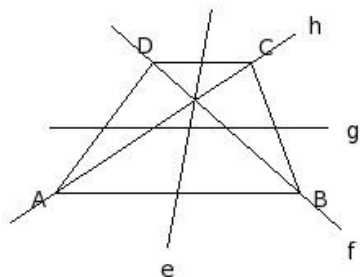f) trapezium
g) parallelogram

(i) {d,f,c} (ii) {b,e} (iii) {a,c} (iv) {g,e,c} (v) {c,e}

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16. Given figure has how many lines of symmetry?

(i) 2 (ii) 7 (iii) 4 (iv) 5 (v) 6

17. Which of the following are line(s) of symmetry for the given trapezium?

    (i) { e, f, g, h } (ii) g (iii) none (iv) { f, h } (v) f

18. Which of the following are true?

    a) Line of symmetry is perpendicular to axis of symmetry.
    b) An obtuse angled triangle has zero lines of symmetry.
    c) Axis of symmetry of a figure need not intersect with the figure at any point.
    d) For every point on the figure on one side of the axis of symmetry, there is a corresponding point on the other side.
    e) Line of symmetry and axis of symmetry are same.
    f) A figure can have multiple axes of symmetry.
    g) A figure can be broken into two congruent shapes about its axis of symmetry.
    h) A line segment has one line of symmetry.

    (i) {a,d} (ii) {a,g,d} (iii) {b,e} (iv) {c,h,f} (v) {d,e,f,g}

19. Which of the following quadrilaterals have three lines of symmetry?

    a) isosceles trapezium
    b) parallelogram
    c) rectangle
    d) square
    e) rhombus
    f) none
    g) trapezium

    (i) {a,f} (ii) {f} (iii) {b,f} (iv) {e,f} (v) {c,d,f}

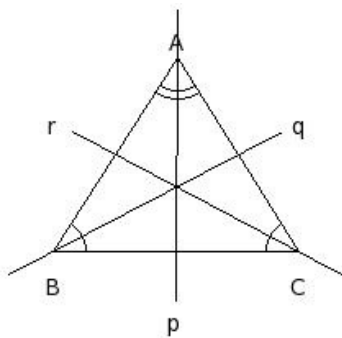20. Which of the following quadrilaterals have four lines of symmetry?

    a) parallelogram
    b) isosceles trapezium
    c) trapezium
    d) kite
    e) square
    f) rhombus
    g) rectangle

    (i) {c,d,e} (ii) {f,e} (iii) {a,e} (iv) {b,e} (v) {e}

21. Which of the following English alphabet letters have zero lines of symmetry?
    (i) Z (ii) H (iii) T (iv) K (v) I

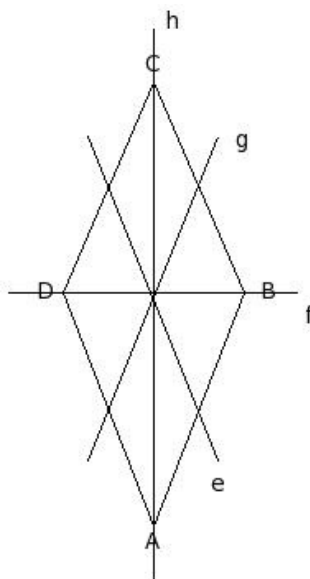22. Identify the line(s) of symmetry in the following figure

(i) r (ii) q (iii) p (iv) { p, q, r } (v) none

23. Which of the following figures have two lines of symmetry?

a) isosceles trapezium
b) kite
c) line segment
d) rectangle
e) square
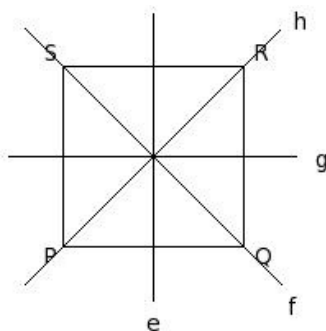f) scalene triangle
g) angle with equal arms
h) isosceles triangle

(i) {g,d,c} (ii) {b,d} (iii) {a,c} (iv) {c,d} (v) {e,f,c}

24. Which of the following are line(s) of symmetry for the given kite?

(i) { e, g } (ii) e (iii) g (iv) h (v) none

25. Which of the following are line(s) of symmetry for the given square?

(i) { e, g } (ii) e (iii) { f, h } (iv) { e, f, g, h } (v) none

Assignment Key

1) (i)	2) (i)	3) (iv)	4) (iv)	5) (ii)	6) (ii)
7) (iii)	8) (v)	9) (v)	10) (v)	11) (v)	12) (ii)
13) (iv)	14) (iv)	15) (v)	16) (iv)	17) (iii)	18) (v)
19) (ii)	20) (v)	21) (i)	22) (iii)	23) (iv)	24) (iv)
25) (iv)					