



1. Which of the following figures have point symmetry?

- a) equilateral triangle
- b) isosceles right angled triangle
- c) right angle triangle
- d) line segment
- e) isosceles triangle
- f) scalene triangle

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

2. If a figure has rotational symmetry of order 5, then it regain its shape after being rotated by an angle of

(i) 75° (ii) 72° (iii) 67° (iv) 69° (v) 77°

3. Which of the following English alphabet letters have zero lines of symmetry?

(i) I (ii) X (iii) N (iv) D (v) E

4. Which of the following quadrilaterals have no rotational symmetry?

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

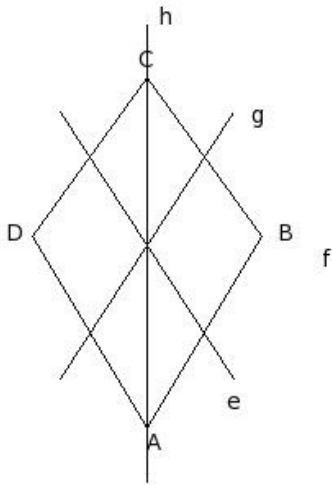
(i) {b,d,e} (ii) {a,b} (iii) {c,d} (iv) {a,b,d} (v) {f,g,e}

5. Which of the following quadrilaterals have zero lines of symmetry?

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

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

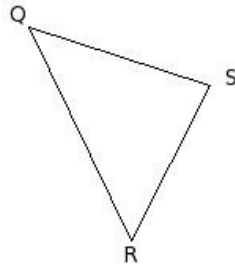
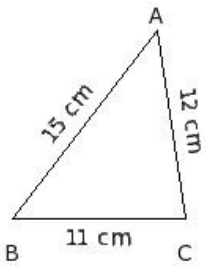
6. Which of the following are line(s) of symmetry for the given kite?



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

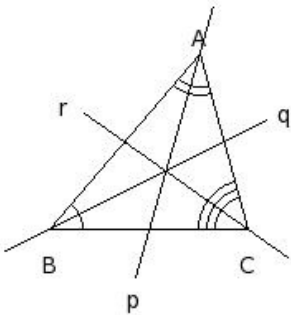
7. In the given figure, $\triangle ABC \cong \triangle QRS$. Which of the following are true?

- a) $SQ = 15$ cm
- b) $RS = 15$ cm
- c) $SQ = 12$ cm
- d) $RS = 11$ cm
- e) $QR = 15$ cm
- f) $QR = 11$ cm



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

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



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

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

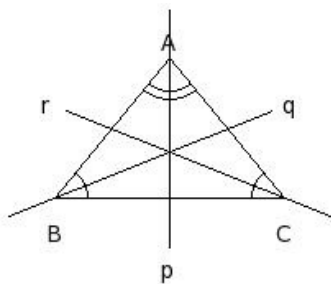
(i) {c,e,f,h} (ii) {a,h,c} (iii) {a,c} (iv) {b,e} (v) {d,g,f}

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

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

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

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



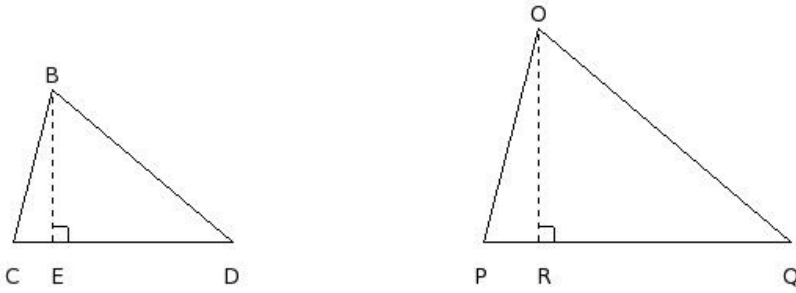
(i) p (ii) none (iii) r (iv) { p, q, r } (v) q

12. Which of the following quadrilaterals have two lines of symmetry?

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

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

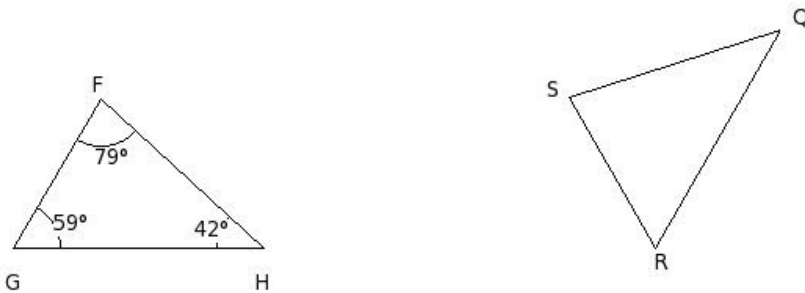
13. In the given figure, $\triangle BCD$ & $\triangle OPQ$ are similar triangles. If the ratio of the heights $BE : OR = 10 : 14$, then the ratio of their areas is



- (i) 100sq.cm:198sq.cm (ii) 99sq.cm:196sq.cm (iii) 101sq.cm:196sq.cm (iv) 100sq.cm:194sq.cm
 (v) 100sq.cm:196sq.cm

14. In the given figure, $\triangle FGH \cong \triangle SRQ$. Which of the following are true?

- a) $\angle R = 59^\circ$
 b) $\angle Q = 79^\circ$
 c) $\angle Q = 42^\circ$
 d) $\angle S = 79^\circ$
 e) $\angle R = 42^\circ$
 f) $\angle S = 59^\circ$



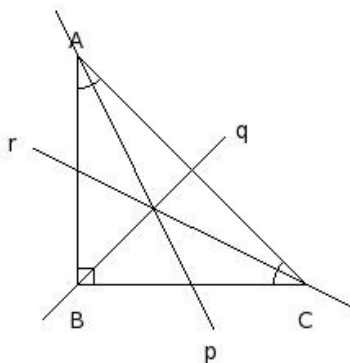
- (i) {f,b,d} (ii) {e,a,c} (iii) {b,a} (iv) {a,c,d} (v) {e,c}

15. Which of the following are true?

- a) A rectangle has rotational symmetry of order four.
 b) A semi-circle has rotational symmetry of order two.
 c) A square has rotational symmetry of order four.
 d) A rhombus has rotational symmetry of order four.
 e) A parallelogram has rotational symmetry of order four.

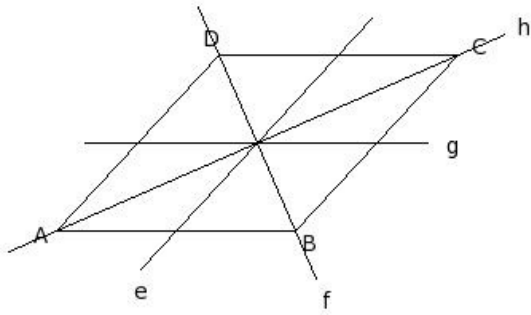
- (i) {d,e,c} (ii) {a,c} (iii) {b,c} (iv) {c}

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



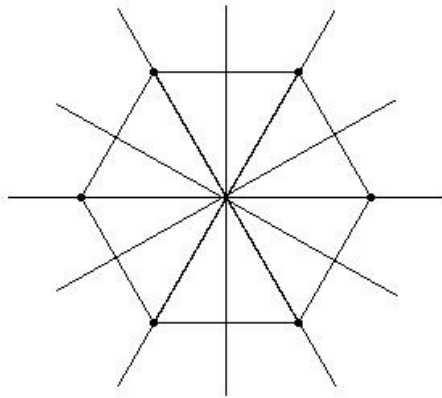
- (i) none (ii) p (iii) q (iv) r (v) {p, q, r}

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



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

18. Given figure has how many lines of symmetry?



- (i) 5 (ii) 9 (iii) 4 (iv) 7 (v) 6

19. Which of the following quadrilaterals have point symmetry?

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

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

20. Which of the following are true?

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

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

21. Which of the following are necessary conditions for similarity of two polygons ?

- a) The corresponding sides are equal.
- b) The corresponding sides are proportional.
- c) The corresponding angles are equal.
- d) The corresponding angles are proportional.

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

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

(i) X (ii) C (iii) I (iv) D (v) O

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

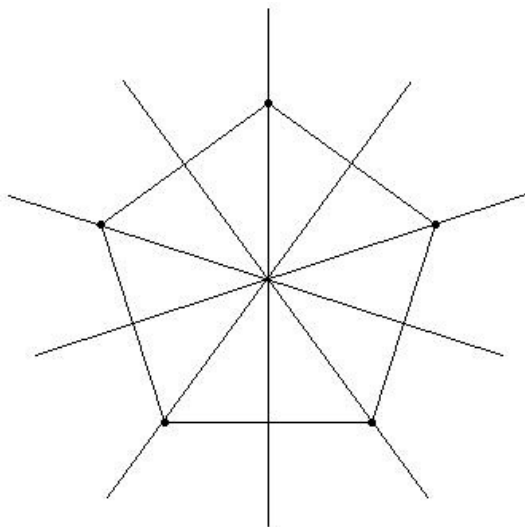
- a) isosceles right angled triangle
- b) right angle triangle
- c) line segment
- d) isosceles triangle
- e) scalene triangle
- f) equilateral triangle

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

24. Which of the following English alphabet letters has rotational symmetry?

(i) N (ii) C (iii) F (iv) P (v) D

25. Given figure has how many lines of symmetry?



(i) 5 (ii) 8 (iii) 6 (iv) 3 (v) 4

Assignment Key

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