c) isosceles triangled) angle with equal arms

e) scalene triangle

h) line segment

f) angle with unequal armsg) right angled triangle

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

Name : Linear Symmetry

Chapter : Linear Symmetry

Grade: ICSE Grade VI

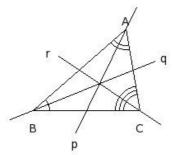
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1.	The English alphabet letter 'B' has how many lines of symmetry?  (i) three (ii) two (iii) infinite (iv) zero (v) one
2.	The English alphabet letter 'X' has how many lines of symmetry?  (i) three (ii) zero (iii) infinite (iv) two (v) one
3.	The English alphabet letter 'L' has how many lines of symmetry?  (i) infinite (ii) one (iii) zero (iv) three (v) two
4.	The English alphabet letter 'O' has how many lines of symmetry?  (i) infinite (ii) zero (iii) two (iv) one (v) three
5.	Which of the following English alphabet letters have one line of symmetry?  (i) Q (ii) H (iii) I (iv) G (v) C
6.	Which of the following English alphabet letters have two lines of symmetry?  (i) N (ii) R (iii) K (iv) V (v) I
7.	Which of the following English alphabet letters have infinite lines of symmetry?  (i) H (ii) O (iii) C (iv) B (v) I
8.	Which of the following English alphabet letters have zero lines of symmetry?  (i) L (ii) M (iii) E (iv) I (v) X
9.	Which of the following figures have no line of symmetry?  a) line segment b) scalene triangle c) isosceles triangle d) angle with unequal arms e) angle with equal arms f) equilateral triangle  (i) {c,d} (ii) {b,d} (iii) {a,d,b} (iv) {e,f,b} (v) {a,b}
10	<ul> <li>Which of the following figures have one line of symmetry?</li> <li>a) isosceles right angled triangle</li> <li>b) equilateral triangle</li> </ul>

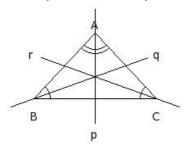
11. Which of the following are true?
<ul> <li>a) Line of symmetry is perpendicular to axis of symmetry.</li> <li>b) An obtuse angled triangle has zero lines of symmetry.</li> <li>c) A figure can have multiple axes of symmetry.</li> <li>d) A line segment has one line of symmetry.</li> <li>e) Line of symmetry and axis of symmetry are same.</li> <li>f) For every point on the figure on one side of the axis of symmetry, there is a corresponding point on the other side.</li> <li>g) Axis of symmetry of a figure need not intersect with the figure at any point.</li> <li>h) A figure can be broken into two congruent shapes about its axis of symmetry.</li> <li>(i) {c,e,f,h} (ii) {a,c} (iii) {b,e} (iv) {d,g,f} (v) {a,h,c}</li> </ul>
12. Which of the following figures have two lines of symmetry?
a) square b) isosceles triangle c) isosceles trapezium d) scalene triangle e) rectangle f) line segment g) angle with equal arms h) kite  (i) {b,f} (ii) {e,f} (iii) {c,d,e} (iv) {g,f,e} (v) {a,e}
13. Which of the following figures have three lines of symmetry?
a) isosceles triangle b) scalene triangle c) right angle triangle d) equilateral triangle e) line segment f) isosceles right angled triangle  (i) {b,d} (ii) {f,d} (iii) {a,d} (iv) {d} (v) {c,e,d}
14. A median is an axis of symmetry in which of the given figures?
<ul> <li>a) scalene triangle</li> <li>b) isosceles triangle</li> <li>c) right angle triangle</li> <li>d) isosceles right angled triangle</li> <li>e) equilateral triangle</li> <li>(i) {a,b} (ii) {a,b,d} (iii) {b,d,e} (iv) {c,d} (v) {a,c,e}</li> </ul>
15. Which of the following quadrilaterals have zero lines of symmetry?
a) trapezium b) parallelogram c) rhombus d) isosceles trapezium e) kite f) square g) rectangle  (i) {g,b,a} (ii) {c,a} (iii) {e,f,a} (iv) {a,b} (v) {d,b}

16.	Which of the following quadrilaterals have one line of symmetry?
	a) trapezium
	b) rectangle
	c) square
	d) rhombus
	e) kite
	f) isosceles trapezium
	g) parallelogram
	(i) {e,f} (ii) {b,f} (iii) {g,f,e} (iv) {c,d,e} (v) {a,e}
17.	Which of the following quadrilaterals have two lines of symmetry?
	a) rhombus
	b) rectangle
	c) parallelogram
	d) trapezium
	e) square
	f) kite
	g) isosceles trapezium
	(i) {e,f,a} (ii) {d,b} (iii) {a,b} (iv) {g,b,a} (v) {c,a}
18.	Which of the following quadrilaterals have three lines of symmetry?
	a) square
	b) trapezium
	c) none
	d) parallelogram
	e) rhombus
	f) isosceles trapezium
	g) rectangle
	(i) {b,c} (ii) {c} (iii) {a,c} (iv) {d,e,c} (v) {f,c}
19.	Which of the following quadrilaterals have four lines of symmetry?
	a) rhombus
	b) kite
	c) square
	d) parallelogram
	e) isosceles trapezium
	f) rectangle
	g) trapezium
	(i) {d,e,c} (ii) {a,c} (iii) {b,c} (iv) {f,c} (v) {c}

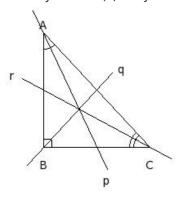
- 20. Which of the following are true?
  - a) An n-sided regular polygon has n/2 lines of symmetry if n is even.
  - b) If a quadrilateral has four lines of symmetry, then it is a regular polygon.
  - c) If a polygon is not regular, it will have less number of axes of symmetry than the number of sides.
  - d) If a triangle has two lines of symmetry, then it is a regular polygon.
  - e) Line of symmetry divides the polygon into two identical shapes.
  - f) A regular polygon of n sides will have n lines of symmetry.
  - g) Lines of symmetry of a regular polygon are nothing but the diagonals of a regular polygon.
  - (i)  $\{a,b\}$  (ii)  $\{g,a,e\}$  (iii)  $\{d,c\}$  (iv)  $\{d,f,b\}$  (v)  $\{b,c,e,f\}$
- 21. Which of the following figures have infinite lines of symmetry?
  - a) line segment
  - b) n-sided polygon where n is very large
  - c) semicircle
  - d) sector of a circle
  - e) circle
  - (i) {b,e} (ii) {a,e} (iii) {e} (iv) {c,d,e}
- 22. Identify the line(s) of symmetry in the following figure



- (i)  $\{p, q, r\}$  (ii) none (iii) p (iv) q (v) r
- 23. Identify the line(s) of symmetry in the following figure

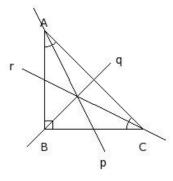


- (i) none (ii)  $\{p,q,r\}$  (iii) r (iv) q (v) p
- 24. Identify the line(s) of symmetry in the following figure



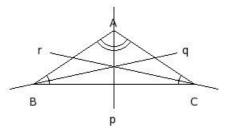
(i) q (ii)  $\{p, q, r\}$  (iii) none (iv) r (v) p

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



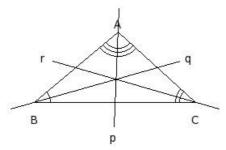
(i) r (ii) q (iii) p (iv) none (v)  $\{p, q, r\}$ 

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



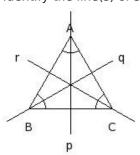
(i) r (ii) p (iii) q (iv)  $\{p,q,r\}$  (v) none

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



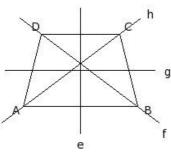
(i)  $\{p,q,r\}$  (ii) none (iii) r (iv) q (v) p

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



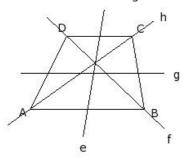
(i) { p, q, r } (ii) p (iii) none (iv) q (v) r

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



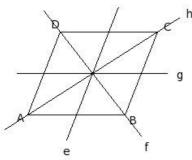
(i)  $\{f,h\}$  (ii)  $\{e,g\}$  (iv)  $\{e,f,g,h\}$  (v) e

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



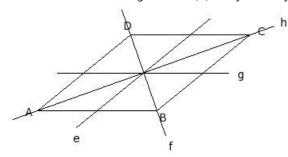
(i)  $\{f,h\}$  (ii)  $\{e,g\}$  (iii)  $\{e,f,g,h\}$  (iv) none (v) g

31. Which of the following are line(s) of symmetry for the given parallelogram?



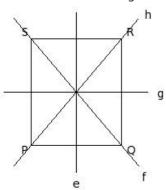
(i) h (ii) e (iii) f (iv) none (v) { f, h }

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



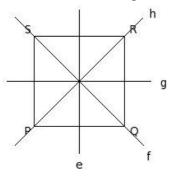
(i) g (ii)  $\{e,g\}$  (iii) none (iv)  $\{f,h\}$  (v)  $\{e,f,g,h\}$ 

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

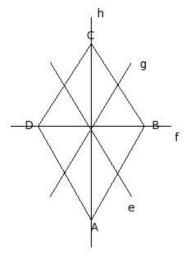


(i) { e, g } (ii) none (iii) g (iv) f (v) { f, h }

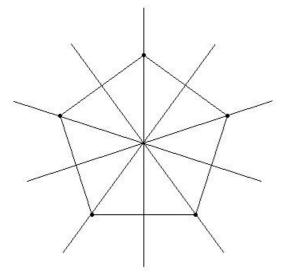
34. Which of the following are line(s) of symmetry for the given square?



- (i) { e, f, g, h } (ii) e (iii) f (iv) none (v) { f, h }
- 35. Which of the following are line(s) of symmetry for the given kite?

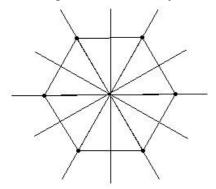


- (i) g (ii) { e, f, g, h } (iii) { e, g } (iv) h (v) f
- 36. Given figure has how many lines of symmetry?



(i) 2 (ii) 4 (iii) 5 (iv) 8 (v) 6

## 37. Given figure has how many lines of symmetry?



(i) 9 (ii) 7 (iii) 6 (iv) 3 (v) 5

Assignment Key								
1) (v)	2) (iv)	3) (iii)	4) (i)	5) (v)	6) (v)			
7) (ii)	8) (i)	9) (ii)	10) (ii)	11) (i)	12) (ii)			
13) (iv)	14) (iii)	15) (iv)	16) (i)	17) (iii)	18) (ii)			
19) (v)	20) (v)	21) (iii)	22) (ii)	23) (v)	24) (iii)			
25) (ii)	26) (ii)	27) (ii)	28) (i)	29) (v)	30) (iv)			
31) (iv)	32) (iv)	33) (i)	34) (i)	35) (iv)	36) (iii)			
37) (iii)								

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