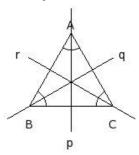
Name: Chapter Based Worksheet

Chapter : Symmetry
Grade : ICSE Grade X

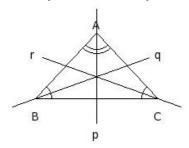
License: Non Commercial Use

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



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

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



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

3. Which of the following are true?

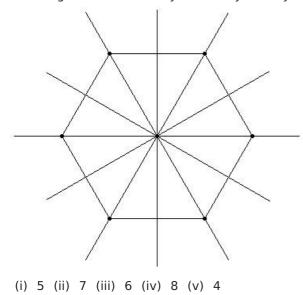
- a) Line of symmetry is perpendicular to axis of symmetry.
- b) A line segment has one line of symmetry.
- c) A figure can be broken into two congruent shapes about its axis of symmetry.
- d) An obtuse angled triangle has zero lines of symmetry.
- e) Line of symmetry and axis of symmetry are same.
-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

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

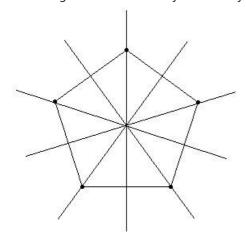
4. Which of the following English alphabet letters have zero lines of symmetry?

(i) K (ii) X (iii) H (iv) F (v) U

5. Given figure has how many lines of symmetry?

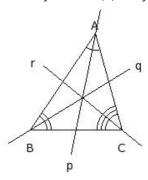


- 6. Which of the following quadrilaterals have zero lines of symmetry?
 - a) trapezium
 - b) parallelogram
 - c) kite
 - d) square
 - e) isosceles trapezium
 - f) rhombus
 - g) rectangle
 - (i) {e,f,a} (ii) {g,b,a} (iii) {a,b} (iv) {c,a} (v) {d,b}
- 7. Given figure has how many lines of symmetry?



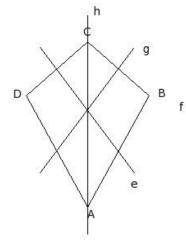
- (i) 4 (ii) 6 (iii) 3 (iv) 7 (v) 5
- 8. Which of the following English alphabet letters have one line of symmetry?
 - (i) F (ii) G (iii) B (iv) I (v) X

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



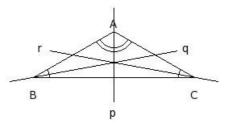
(i) $\{p,q,r\}$ (ii) p (iii) q (iv) none (v) r

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



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

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



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

12. The English alphabet letter 'C' has how many lines of symmetry?

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

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

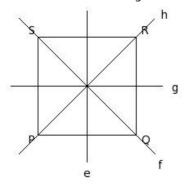
- a) parallelogram
- b) kite
- c) trapezium
- d) rectangle
- e) rhombus
- f) isosceles trapezium
- g) square

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

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

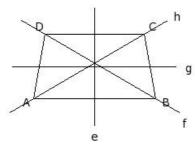
(i) B (ii) J (iii) N (iv) C (v) H

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



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

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



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

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

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

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

18. Which of the following are true?

- a) A regular polygon of n sides will have n lines of symmetry.
- 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) Lines of symmetry of a regular polygon are nothing but the diagonals of a regular polygon.
- e) Line of symmetry divides the polygon into two identical shapes.
- f) If a triangle has two lines of symmetry, then it is a regular polygon.
- g) An n-sided regular polygon has n/2 lines of symmetry if n is even.

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

19. The English alphabet letter 'I' has how many lines of symmetry?

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

c) angle with equal arms
d) scalene triangle
e) equilateral triangle
f) angle with unequal arms
(i) {b,f} (ii) {a,f,d} (iii) {a,d} (iv) {c,e,d} (v) {d,f}
21. Which of the following English alphabet letters have infinite lines of symmetry?
(i) B (ii) A (iii) O (iv) X (v) I
22. Which of the following quadrilaterals have four lines of symmetry?
a) kite
b) rhombus
c) square
d) trapezium
e) rectangle
f) isosceles trapezium
g) parallelogram
(i) {b,c} (ii) {f,c} (iii) {a,c} (iv) {d,e,c} (v) {c}
23. A median is an axis of symmetry in which of the given figures?
a) right angle triangle
b) isosceles triangle
c) equilateral triangle
d) isosceles right angled triangle
e) scalene triangle
(i) {a,e,d} (ii) {b,c,d} (iii) {a,b,c} (iv) {a,b} (v) {e,c}
24. Identify the line(s) of symmetry in the following figure
A
r q
B C
1.50
(i) { p, q, r } (ii) none (iii) q (iv) r (v) p
25. The English alphabet letter 'L' has how many lines of symmetry?
(i) infinite (ii) two (iii) one (iv) zero (v) three

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

a) line segmentb) isosceles triangle

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

Copyright © Small Systems Computing Pvt. Ltd.