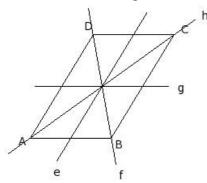
Name : Chapter Based Worksheet

Chapter : Linear Symmetry

Grade: ICSE Grade VI

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



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

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

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

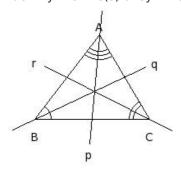
(i) {f,e} (ii) {a,e} (iii) {c,d,e} (iv) {e} (v) {b,e}

3. Which of the following figures have one line of symmetry?

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

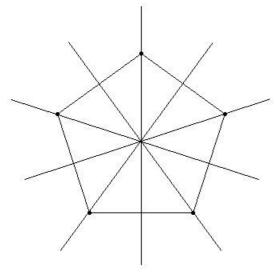
(i) $\{g,d,e\}$ (ii) $\{b,e\}$ (iii) $\{c,f,h\}$ (iv) $\{a,d\}$ (v) $\{d,e,h\}$

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

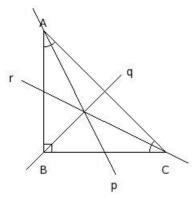


(i) q (ii) r (iii) p (iv) none (v) { p, q, r }

- 5. Which of the following are true?
 - a) If a triangle has two lines of symmetry, then it is a regular polygon.
 - b) Lines of symmetry of a regular polygon are nothing but the diagonals of a regular polygon.
 - c) An n-sided regular polygon has n/2 lines of symmetry if n is even.
 - d) A regular polygon of n sides will have n lines of symmetry.
 - e) If a quadrilateral has four lines of symmetry, then it is a regular polygon.
 - f) If a polygon is not regular, it will have less number of axes of symmetry than the number of sides.
 - g) Line of symmetry divides the polygon into two identical shapes.
 - (i) $\{a,d\}$ (ii) $\{b,e\}$ (iii) $\{c,a,f\}$ (iv) $\{b,g,d\}$ (v) $\{d,e,f,g\}$
- 6. Given figure has how many lines of symmetry?



- (i) 6 (ii) 7 (iii) 4 (iv) 5 (v) 3
- 7. Which of the following English alphabet letters have zero lines of symmetry?
 - (i) H (ii) E (iii) P (iv) X (v) B
- 8. Identify the line(s) of symmetry in the following figure

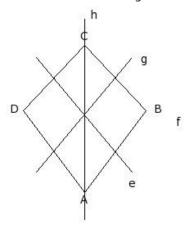


(i) r (ii) { p, q, r} (iii) none (iv) p (v) q

9. Which of the following figures have two lines of symmetry?
a) kite
b) angle with equal arms
c) rectangle d) square
e) isosceles trapezium
f) line segment
g) isosceles triangle
h) scalene triangle
(i) {b,f} (ii) {d,e,c} (iii) {a,c} (iv) {c,f} (v) {g,f,c}
10. The English alphabet letter 'O' has how many lines of symmetry?
(i) one (ii) two (iii) infinite (iv) zero (v) three
11. Which of the following flavore have no line of a manatur?
11. Which of the following figures have no line of symmetry?
a) isosceles triangle
b) equilateral triangle
c) angle with equal arms d) line segment
e) angle with unequal arms
f) scalene triangle
(i) {e,f} (ii) {c,d,e} (iii) {a,e} (iv) {a,f,e} (v) {b,f}
12. Which of the following quadrilaterals have two lines of symmetry?
a) rhombus
b) isosceles trapezium
c) parallelogram
d) trapezium
e) rectangle
f) square
g) kite
(i) {g,e,a} (ii) {d,f,a} (iii) {c,e} (iv) {a,e} (v) {b,a}
13. The English alphabet letter 'C' has how many lines of symmetry?
(i) one (ii) three (iii) infinite (iv) two (v) zero
14. Identify the line(s) of symmetry in the following figure
r q

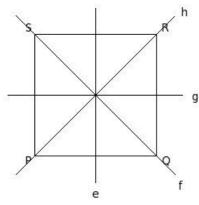
(i) none (ii) r (iii) $\{p,q,r\}$ (iv) p (v) q

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



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

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



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

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

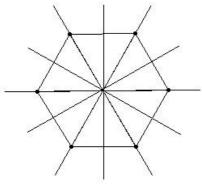
- a) parallelogram
- b) rhombus
- c) kite
- d) square
- e) rectangle
- f) trapezium
- g) isosceles trapezium

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

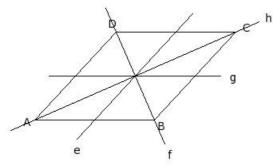
18. Which of the following figures have infinite lines of symmetry?

- a) n-sided polygon where n is very large
- b) semicircle
- c) sector of a circle
- d) circle
- e) line segment
- (i) {d} (ii) {b,d} (iii) {a,d} (iv) {c,e,d}

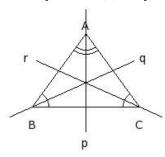
19. Given figure has how many lines of symmetry?



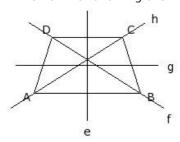
- (i) 7 (ii) 8 (iii) 6 (iv) 3 (v) 5
- 20. Which of the following are line(s) of symmetry for the given rhombus?



- (i) f (ii) h (iii) $\{f,h\}$ (iv) g (v) $\{e,f,g,h\}$
- 21. Identify the line(s) of symmetry in the following figure



- (i) $\{p,q,r\}$ (ii) p (iii) r (iv) none (v) q
- 22. Which of the following English alphabet letters have one line of symmetry?
 - (i) X (ii) F (iii) Q (iv) A (v) I
- 23. Which of the following are line(s) of symmetry for the given isosceles trapezium?

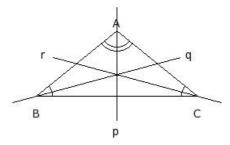


(i) f (ii) e (iii) { e, g } (iv) g (v) { f, h }

24. Which of the following are true?

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

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



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

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

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