EduSahara™ Assignment

Name : Quadrilateral Properties

Chapter : Quadrilaterals

Grade : ICSE Grade IX

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1. Which of the following statements are true?

a) All quadrilaterals are trapeziums
b) A parallelogram is a trapezium
c) All trapeziums are parallelograms
d) The set of parallelograms is a subset of the set of trapeziums
e) All quadrilaterals are parallelograms

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

2. The sum of the interior angles of a quadrilateral is

(i) 270° (ii) 90° (iii) 180° (iv) 360°

3. If ABCD is an isosceles trapezium, ∠B =

(i) ∠C (ii) ∠A (iii) 90° (iv) ∠D

4. In which of the following are the diagonals equal ?

(i) rhombus (ii) parallelogram (iii) None of these (iv) trapezium (v) rectangle

5. If one of the angles of a rhombus is a right angle, it is a

(i) square (ii) trapezium (iii) rectangle (iv) parallelogram (v) None of these

6. If the two diagonals of a parallelogram are equal and right bisectors of each other, it is a

(i) rectangle (ii) None of these (iii) square (iv) rhombus (v) trapezium

7. GHIJ is a rhombus in which ∠G = 120° .
$\overline{HJ}$
is the diagonal. Then △GHI is

(i) an isosceles triangle (ii) None of these (iii) a scalene triangle (iv) an obtuse angled triangle
(v) an equilateral triangle

8. PQRS is a rhombus in which ∠P = 123° .
$\overline{QS}$
is the diagonal. Then △PQR is

(i) an equilateral triangle (ii) an obtuse angled triangle (iii) an isosceles triangle (iv) None of these
(v) a scalene triangle

9. Which of the following statements are true?

a) Every rhombus is parallelogram
b) Every rectangle is a parallelogram
c) Every parallelogram is a rectangle
d) Every rectangle is a rhombus
e) Every square is a rectangle

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

10. Which of the following have point symmetry ?

a) square
b) trapezium
c) quadrilateral
d) rectangle
e) rhombus
f) parallelogram

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

11. Which of the following statements are true?

a) A rhombus is a square
b) A trapezium is a parallelogram
c) A parallelogram is a rhombus
d) A square is a rectangle
e) A rectangle is a parallelogram
f) A parallelogram is a trapezium
g) A square is a rhombus

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

12. Which of the following is a regular polygon with four sides?

(i) rhombus (ii) rectangle (iii) square (iv) trapezium (v) parallelogram

13. Sum of the interior angles in a quadrilateral is

(i) 375° (ii) 360° (iii) 365° (iv) 390° (v) 370°

14. How many diagonals does a quadrilateral have?

(i) 2 (ii) 1 (iii) 0 (iv) 3 (v) 4

15. Which of the following are true?

a) A parallelogram is a square
b) A rectangle is a square
c) A square is a rectangle
d) A square is a rhombus
e) A rhombus is a square

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

16. Which of the following are true?

a) A parallelogram is a rectangle
b) A rectangle is a parallelogram
c) A rectangle is a square
d) A square is a parallelogram
e) A parallelogram is a square

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

17. Which of the following are true?

a) A trapezium is a parallelogram
b) A parallelogram is a trapezium
c) A rectangle is a square
d) A rhombus is a trapezium
e) A trapezium is a rhombus

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

18. Which of the following are true?

a) A trapezium is a parallelogram
b) A rhombus is a parallelogram
c) A parallelogram is a rhombus
d) A rhombus is a kite
e) A kite is a rhombus

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

19. Which of the following are true?

a) A square is a trapezium
b) A parallelogram is a rhombus
c) A rectangle is a rhombus
d) A trapezium is a square
e) A square is a rectangle

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

20. The quadrilateral whose diagonals are equal and are perpendicular bisectors is a

(i) rhombus (ii) trapezium (iii) square (iv) rectangle (v) parallelogram

21. The diagonals do not divide the quadrilateral into congruent triangles in which figure?

(i) rectangle (ii) trapezium (iii) rhombus (iv) square (v) parallelogram

22. Name all quadrilaterals whose diagonals are equal

(i) square,parallelogram (ii) square,rhombus (iii) parallelogram,square,rhombus,rectangle (iv) square,kite (v) square,rectangle

23. Name all quadrilaterals whose diagonals bisect each other

(i) rectangle,rhombus (ii) square,rhombus (iii) square,kite (iv) square,parallelogram (v) parallelogram,square,rhombus,rectangle

24. Name all quadrilaterals whose diagonals are perpendicular and bisect each other

(i) rectangle,rhombus (ii) square,parallelogram (iii) square,rhombus (iv) square,rectangle (v) square,kite

25. Name all quadrilaterals whose opposite sides are equal

(i) square,rectangle (ii) square,parallelogram (iii) rectangle,rhombus (iv) parallelogram,square,rhombus,rectangle (v) square,rhombus

26. Name all quadrilaterals whose opposite sides are parallel

(i) square,kite (ii) parallelogram,square,rhombus,rectangle (iii) square,rhombus (iv) rectangle,rhombus (v) square,parallelogram

27. Name all quadrilaterals whose all sides are equal

(i) rectangle,rhombus (ii) square,kite (iii) square,parallelogram (iv) parallelogram,square,rhombus,rectangle (v) square,rhombus

28. Name all quadrilaterals whose all angles are right angles

(i) rectangle,rhombus (ii) square,rectangle (iii) square,rhombus (iv) square,kite (v) square,parallelogram

29. Name all quadrilaterals whose opposite angles are equal

(i) square,rectangle (ii) square,kite (iii) square,parallelogram (iv) parallelogram,square,rhombus,rectangle (v) square,rhombus

30. Name all quadrilaterals whose all angles are equal

(i) square,rectangle (ii) rectangle,rhombus (iii) square,rhombus (iv) square,kite (v) square,parallelogram

31. Name all quadrilaterals whose adjacent angles are supplementary

(i) square,kite (ii) square,rectangle (iii) parallelogram,square,rhombus,rectangle (iv) square,parallelogram (v) rectangle,rhombus

32. Which of the following statements are true?

a) In a parallelogram, adjacent angles are supplementary
b) In a parallelogram, both adjacent angles can be acute
c) In a parallelogram, both adjacent angles can be obtuse
d) In a parallelogram, adjacent angles are complementary
e) In a parallelogram, both adjacent angles can be right angles

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

33. Which of the following properties apply for a parallelogram ?

a) Diagonals bisect each other
b) Adjacent angles are supplementary
c) Diagonals are perpendicular to each other
d) Opposite sides are equal
e) Diagonals are equal to each other
f) Opposite angles are equal

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

34. Which of the following properties apply for a trapezium ?

(i) One pair of opposite sides are parallel (ii) Diagonals are equal (iii) Diagonals bisect each other (iv) Both adjacent angles are obtuse (v) Adjacent angles are supplementary

35. Which of the following properties apply for a kite ?

(i) Diagonals are equal (ii) Opposite sides are parallel (iii) Opposite sides are equal (iv) Diagonals are perpendicular (v) Opposite angles are parallel

36. Which of the following properties apply for a rhombus ?

a) Adjacent angles are equal
b) Opposite sides are equal
c) Diagonals bisect each other
d) Opposite sides are parallel
e) Opposite angles are equal
f) Diagonals are equal
g) Adjacent sides are equal

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

37. Which of the following properties apply for a rectangle ?

a) Adjacent sides are equal
b) Adjacent angles are equal
c) Opposite sides are parallel
d) Opposite angles are equal
e) Opposite sides are equal
f) Diagonals are equal
g) Diagonals bisect each other

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

38. Which of the following statements are true?

a) Every rectangle is a parallelogram
b) Every parallelogram is a rectangle
c) Every rectangle is a rhombus
d) Every parallelogram is a trapezium
e) Every square is a rectangle
f) Every rhombus is a parallelogram
g) Every square is a rhombus

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

39. The figure formed by successively joining the mid-points of the sides of a parallelogram is

(i) rhombus (ii) square (iii) parallelogram (iv) rectangle

40. The figure formed by successively joining the mid-points of the sides of a rectangle is

(i) rhombus (ii) parallelogram (iii) square (iv) rectangle

41. The figure formed by successively joining the mid-points of the sides of a rhombus is

(i) rectangle (ii) square (iii) parallelogram (iv) rhombus

Assignment Key

1) (iv)	2) (iv)	3) (ii)	4) (v)	5) (i)	6) (iii)
7) (v)	8) (iii)	9) (v)	10) (iii)	11) (i)	12) (iii)
13) (ii)	14) (i)	15) (ii)	16) (iv)	17) (i)	18) (i)
19) (i)	20) (iii)	21) (ii)	22) (v)	23) (v)	24) (iii)
25) (iv)	26) (ii)	27) (v)	28) (ii)	29) (iv)	30) (i)
31) (iii)	32) (v)	33) (iii)	34) (i)	35) (iv)	36) (v)
37) (iii)	38) (v)	39) (iii)	40) (i)	41) (i)	

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