EduSahara™ Assignment

Name : Quadrilateral Properties

Chapter : Quadrilaterals

Grade : ICSE Grade IX

1. Which of the following statements are true?

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

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

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

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

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

(i) ∠C (ii) 90° (iii) ∠D (iv) ∠B

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

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

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

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

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

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

7. DEFG is a rhombus in which ∠D = 120° .
$\overline{EG}$
is the diagonal. Then △DEF is

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

8. NOPQ is a rhombus in which ∠N = 93° .
$\overline{OQ}$
is the diagonal. Then △NOP is

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

9. Which of the following statements are true?

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

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

10. Which of the following have point symmetry ?

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

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

11. Which of the following statements are true?

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

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

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

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

13. Sum of the interior angles in a quadrilateral is

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

14. How many diagonals does a quadrilateral have?

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

15. Which of the following are true?

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

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

16. Which of the following are true?

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

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

17. Which of the following are true?

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

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

18. Which of the following are true?

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

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

19. Which of the following are true?

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

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

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

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

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

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

22. Name all quadrilaterals whose diagonals are equal

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

23. Name all quadrilaterals whose diagonals bisect each other

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

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

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

25. Name all quadrilaterals whose opposite sides are equal

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

26. Name all quadrilaterals whose opposite sides are parallel

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

(iv) rectangle,rhombus (v) square,kite

27. Name all quadrilaterals whose all sides are equal

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

(v) square,rectangle

28. Name all quadrilaterals whose all angles are right angles

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

(v) square,rhombus

29. Name all quadrilaterals whose opposite angles are equal

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

(v) square,parallelogram

30. Name all quadrilaterals whose all angles are equal

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

(v) parallelogram,square,rhombus,rectangle

31. Name all quadrilaterals whose adjacent angles are supplementary

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

(iv) parallelogram,square,rhombus,rectangle (v) square,kite

32. Which of the following statements are true?

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

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

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

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

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

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

(i) Diagonals are equal (ii) Adjacent angles are supplementary (iii) One pair of opposite sides are parallel

(iv) Diagonals are perpendicular to each other (v) Diagonals bisect each other

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

(i) Opposite sides are equal (ii) Diagonals are perpendicular (iii) Diagonals are equal

(iv) Opposite sides are parallel (v) All Adjacent sides are equal

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

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

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

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

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

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

38. Which of the following statements are true?

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

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

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

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

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

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

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

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

Assignment Key

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