EduSahara™ Assignment

Name : Quadrilateral Properties

Chapter : Quadrilaterals

Grade : ICSE Grade IX

1. Which of the following statements are true?

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

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

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

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

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

   (i) ∠B (ii) ∠A (iii) 90° (iv) ∠C

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

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

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

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

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

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

8. BCDE is a rhombus in which ∠B = 134° .
   $\overline{CE}$
   is the diagonal. Then △BCD 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 parallelogram is a rectangle
   b) Every rectangle is a parallelogram
   c) Every square is a rectangle
   d) Every rectangle is a rhombus
   e) Every rhombus is parallelogram

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

10. Which of the following have point symmetry ?

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

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

11. Which of the following statements are true?

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

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

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

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

13. Sum of the interior angles in a quadrilateral is

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

14. How many diagonals does a quadrilateral have?

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

15. Which of the following are true?

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

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

16. Which of the following are true?

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

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

17. Which of the following are true?

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

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

18. Which of the following are true?

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

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

19. Which of the following are true?

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

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

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

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

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

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

22. Name all quadrilaterals whose diagonals are equal

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

(v) parallelogram,square,rhombus,rectangle

23. Name all quadrilaterals whose diagonals bisect each other

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

(v) rectangle,rhombus

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

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

(v) square,parallelogram

25. Name all quadrilaterals whose opposite sides are equal

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

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

26. Name all quadrilaterals whose opposite sides are parallel

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

27. Name all quadrilaterals whose all sides are equal

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

28. Name all quadrilaterals whose all angles are right angles

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

29. Name all quadrilaterals whose opposite angles are equal

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

30. Name all quadrilaterals whose all angles are equal

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

31. Name all quadrilaterals whose adjacent angles are supplementary

(i) parallelogram,square,rhombus,rectangle (ii) rectangle,rhombus (iii) square,kite (iv) square,rectangle (v) square,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 obtuse
c) In a parallelogram, both adjacent angles can be acute
d) In a parallelogram, both adjacent angles can be right angles
e) In a parallelogram, adjacent angles are complementary

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

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

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

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

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

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

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

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

(iv) Opposite sides are equal (v) Diagonals are equal

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

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

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

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

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

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

38. Which of the following statements are true?

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

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

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

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

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

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

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

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

Assignment Key

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