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

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

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

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

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

   (i) ∠B (ii) ∠C (iii) 90° (iv) ∠D

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

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

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

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

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

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

7. ABCD is a rhombus in which ∠A = 120° .
   $\overline{BD}$
   is the diagonal. Then △ABC is

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

8. KLMN is a rhombus in which ∠K = 83° .
   $\overline{LN}$
   is the diagonal. Then △KLM is

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

9. Which of the following statements are true?

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

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

10. Which of the following have point symmetry ?

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

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

11. Which of the following statements are true?

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

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

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

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

13. Sum of the interior angles in a quadrilateral is

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

14. How many diagonals does a quadrilateral have?

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

15. Which of the following are true?

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

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

16. Which of the following are true?

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

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

17. Which of the following are true?

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

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

18. Which of the following are true?

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

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

19. Which of the following are true?

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

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

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

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

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

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

22. Name all quadrilaterals whose diagonals are equal

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

23. Name all quadrilaterals whose diagonals bisect each other

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

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

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

25. Name all quadrilaterals whose opposite sides are equal

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

26. Name all quadrilaterals whose opposite sides are parallel

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

27. Name all quadrilaterals whose all sides are equal

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

28. Name all quadrilaterals whose all angles are right angles

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

29. Name all quadrilaterals whose opposite angles are equal

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

30. Name all quadrilaterals whose all angles are equal

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

31. Name all quadrilaterals whose adjacent angles are supplementary

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

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

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

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

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

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

(i) Diagonals are perpendicular to each other (ii) Adjacent angles are supplementary

(iii) Both adjacent angles are obtuse (iv) One pair of opposite sides are parallel

(v) Diagonals bisect each other

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

(i) All Adjacent sides are equal (ii) Opposite sides are equal (iii) Diagonals are equal

(iv) Adjacent angles are equal (v) Diagonals are perpendicular

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

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

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

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

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

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

38. Which of the following statements are true?

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

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

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

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

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

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

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

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

Assignment Key

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

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