EduSahara™ Assignment

Name : Quadrilateral Properties

Chapter : Quadrilaterals

Grade : ICSE Grade IX



1. Which of the following statements are true?

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

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

(i) ∠B (ii) 90° (iii) ∠A (iv) ∠C

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

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

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

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

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

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

7. CDEF is a rhombus in which ∠C = 120° .
$\overline{DF}$
is the diagonal. Then △CDE is

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

8. GHIJ is a rhombus in which ∠G = 116° .
$\overline{HJ}$
is the diagonal. Then △GHI is

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

9. Which of the following statements are true?

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

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

10. Which of the following have point symmetry ?

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

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

11. Which of the following statements are true?

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

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

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

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

13. Sum of the interior angles in a quadrilateral is

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

14. How many diagonals does a quadrilateral have?

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

15. Which of the following are true?

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

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

16. Which of the following are true?

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

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

17. Which of the following are true?

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

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

18. Which of the following are true?

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

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

19. Which of the following are true?

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

(i) {a,c} (ii) {c,e} (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) rhombus (ii) parallelogram (iii) square (iv) rectangle (v) trapezium

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

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

22. Name all quadrilaterals whose diagonals are equal

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

23. Name all quadrilaterals whose diagonals bisect each other

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

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

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

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

25. Name all quadrilaterals whose opposite sides are equal

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

(v) square,parallelogram

26. Name all quadrilaterals whose opposite sides are parallel

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

(v) square,rhombus

27. Name all quadrilaterals whose all sides are equal

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

(v) parallelogram,square,rhombus,rectangle

28. Name all quadrilaterals whose all angles are right angles

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

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

29. Name all quadrilaterals whose opposite angles are equal

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

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

30. Name all quadrilaterals whose all angles are equal

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

31. Name all quadrilaterals whose adjacent angles are supplementary

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

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

32. Which of the following statements are true?

a) In a parallelogram, adjacent angles are supplementary
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, both adjacent angles can be acute

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

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

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

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

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

(i) Diagonals bisect each other (ii) Adjacent angles are supplementary

(iii) One pair of opposite sides are parallel (iv) Diagonals are equal

(v) Diagonals are perpendicular to each other

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

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

(iv) Diagonals are equal (v) Opposite sides 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) Adjacent sides are equal
e) Diagonals are equal
f) Opposite sides are parallel
g) Opposite angles are equal

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

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

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

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

38. Which of the following statements are true?

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

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

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

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

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

## Assignment Key

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