EduSahara™ Assignment

Name : Quadrilateral Properties

Chapter : Quadrilaterals

Grade : ICSE Grade VIII

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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 trapeziums
d) All quadrilaterals are parallelograms
e) All trapeziums are parallelograms

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

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

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

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

(i) 90° (ii) ∠D (iii) ∠A (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) None of these (ii) trapezium (iii) square (iv) rectangle (v) parallelogram

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

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

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

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

8. ABCD is a rhombus in which ∠A = 85° .
$\overline{BD}$
is the diagonal. Then △ABC is

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

9. Which of the following statements are true?

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

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

10. Which of the following have point symmetry ?

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

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

11. Which of the following statements are true?

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

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

12. Every rhombus is a

a) trapezium
b) rectangle
c) parallelogram
d) square
e) triangle

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

13. The diagonals are equal in a

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

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

14. Sum of the interior angles in a quadrilateral is

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

15. How many diagonals does a quadrilateral have?

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

16. Which of the following are true?

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

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

17. Which of the following are true?

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

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

18. Which of the following are true?

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

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

19. Which of the following are true?

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

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

20. Which of the following are true?

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

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

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

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

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

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

23. Name all quadrilaterals whose diagonals are equal

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

24. Name all quadrilaterals whose diagonals bisect each other

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

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

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

26. Name all quadrilaterals whose opposite sides are equal

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

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

27. Name all quadrilaterals whose opposite sides are parallel

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

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

28. Name all quadrilaterals whose all sides are equal

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

(v) square,rhombus

29. Name all quadrilaterals whose all angles are right angles

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

30. Name all quadrilaterals whose opposite angles are equal

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

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

31. Name all quadrilaterals whose all angles are equal

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

(v) rectangle,rhombus

32. Name all quadrilaterals whose adjacent angles are supplementary

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

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

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

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

34. Which of the following statements are true?

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

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

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

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

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

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

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

(iv) Both adjacent angles are obtuse (v) Diagonals are perpendicular to each other

37. 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

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

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

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

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

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

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

40. 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 parallelogram is a rectangle
e) Every rhombus is a parallelogram
f) Every square is a rhombus
g) Every rectangle is a parallelogram

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

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

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

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

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

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

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

## Assignment Key

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|---|---|---|---|---|---|
| 1) (i) | 2) (ii) | 3) (ii) | 4) (i) | 5) (iii) | 6) (v) |
| 7) (iii) | 8) (i) | 9) (iv) | 10) (i) | 11) (iii) | 12) (i) |
| 13) (iii) | 14) (ii) | 15) (i) | 16) (v) | 17) (i) | 18) (v) |
| 19) (v) | 20) (v) | 21) (ii) | 22) (v) | 23) (iii) | 24) (iv) |
| 25) (ii) | 26) (iii) | 27) (i) | 28) (v) | 29) (iv) | 30) (iv) |
| 31) (iv) | 32) (iii) | 33) (i) | 34) (iii) | 35) (iv) | 36) (i) |
| 37) (v) | 38) (ii) | 39) (iii) | 40) (i) | 41) (ii) | 42) (iv) |
| 43) (i) | | | | | |

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