## EduSahara™ Learning Center Assignment

Grade : Class VIII, ICSE Chapter : Quadrilaterals

Name : Quadrilateral Properties

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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) All trapeziums are parallelograms
  - c) All quadrilaterals are trapeziums
  - d) All quadrilaterals are parallelograms
  - e) A parallelogram is a trapezium
  - (i) {c,e} (ii) {a,e} (iii) {d,b,a} (iv) {c,e,a} (v) {b,a}
- 2. The sum of the interior angles of a quadrilateral is
  - (i) 180° (ii) 270° (iii) 90° (iv) 360°
- 3. If ABCD is an isosceles trapezium, ∠D =
  - (i) ∠A (ii) ∠C (iii) ∠B (iv) 90°
- 4. In which of the following are the diagonals equal?
  - (i) rhombus (ii) None of these (iii) rectangle (iv) trapezium (v) parallelogram
- 5. If one of the angles of a rhombus is a right angle, it is a
  - (i) parallelogram (ii) trapezium (iii) square (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) rectangle (ii) trapezium (iii) None of these (iv) rhombus (v) square
- 7. MNOP is a rhombus in which  $\angle M = 120^{\circ}$ . MO is the diagonal. Then  $\triangle MNO$  is
  - (i) a scalene triangle (ii) an act
- (ii) an acute angled triangle
  - (iii) None of these
- (iv) an isosceles triangle
- (v) an equilateral triangle
- 8. BCDE is a rhombus in which  $\angle B = 101^{\circ}$ . BD is the diagonal. Then  $\triangle BCD$  is

- (i) an acute angled triangle (ii) a scalene triangle
- (iii) an isosceles triangle
- (iv) an equilateral triangle
- (v) None of these
- 9. Which of the following statements are true?
  - a) Every square is a rectangle
  - b) Every rectangle is a parallelogram
  - c) Every rhombus is parallelogram
  - d) Every parallelogram is a rectangle
  - e) Every rectangle is a rhombus
  - (i) {a,b,c} (ii) {d,a} (iii) {d,a,b} (iv) {d,e,c} (v) {e,b}
- 10. Which of the following have point symmetry?
  - a) square
  - b) rhombus
  - c) trapezium
  - d) rectangle
  - e) quadrilateral
  - f) parallelogram
  - (i) {c,f,a} (ii) {c,a} (iii) {e,b} (iv) {c,e,d} (v) {a,b,d,f}
- 11. Which of the following statements are true?
  - a) A trapezium is a parallelogram
  - b) A square is a rectangle
  - c) A square is a rhombus
  - d) A rectangle is a parallelogram
  - e) A parallelogram is a trapezium
  - f) A rhombus is a square
  - g) A parallelogram is a rhombus
  - (i) {g,a,d} (ii) {b,c,d,e} (iii) {a,b} (iv) {f,e,b} (v) {f,c}
- 12. Every rhombus is a
  - a) triangle
  - b) parallelogram
  - c) trapezium
  - d) square
  - e) rectangle
  - (i) {b,c} (ii) {d,c} (iii) {d,c,b} (iv) {a,b} (v) {e,a,b}
- 13. The diagonals are equal in a

- a) parallelogram
- b) square
- c) trapezium
- d) rhombus
- e) rectangle
- (i) {c,e,b} (ii) {d,a,b} (iii) {c,e} (iv) {b,e} (v) {a,b}
- 14. Sum of the interior angles in a quadrilateral is
  - (i) 370° (ii) 390° (iii) 360° (iv) 375° (v) 365°
- 15. How many diagonals does a quadrilateral have?
  - (i) 3 (ii) 0 (iii) 5 (iv) 2 (v) 1
- 16. Which of the following are true?
  - a) A rectangle is a square
  - b) A square is a rectangle
  - c) A rhombus is a square
  - d) A parallelogram is a square
  - e) A square is a rhombus
  - (i) {c,e} (ii) {d,a,b} (iii) {c,e,b} (iv) {b,e} (v) {a,b}
- 17. Which of the following are true?
  - a) A rectangle is a parallelogram
  - b) A square is a parallelogram
  - c) A parallelogram is a square
  - d) A parallelogram is a rectangle
  - e) A rectangle is a square
  - (i) {a,b} (ii) {d,b} (iii) {e,c,a} (iv) {d,b,a} (v) {c,a}
- 18. Which of the following are true?
  - a) A parallelogram is a trapezium
  - b) A rectangle is a square
  - c) A rhombus is a trapezium
  - d) A trapezium is a rhombus
  - e) A trapezium is a parallelogram
  - (i) {d,c,a} (ii) {a,c} (iii) {d,c} (iv) {e,b,a} (v) {b,a}
- 19. Which of the following are true?
  - a) A trapezium is a parallelogram
  - b) A parallelogram is a rhombus
  - c) A rhombus is a parallelogram

- d) A rhombus is a kite
- e) A kite is a rhombus
- (i) {b,d,c} (ii) {e,a,c} (iii) {a,c} (iv) {b,d} (v) {c,d}
- 20. Which of the following are true?
  - a) A rectangle is a rhombus
  - b) A square is a rectangle
  - c) A square is a trapezium
  - d) A parallelogram is a rhombus
  - e) A trapezium is a square
  - (i) {a,b} (ii) {b,c} (iii) {d,c,b} (iv) {e,a,b} (v) {d,c}
- 21. The quadrilateral whose diagonals are equal and are perpendicular bisectors is a
  - (i) square (ii) rhombus (iii) parallelogram (iv) rectangle (v) trapezium
- 22. The diagonals do not divide the quadrilateral into congruent triangles in which figure?
  - (i) rectangle (ii) square (iii) parallelogram (iv) rhombus (v) trapezium
- 23. Name all quadrilaterals whose diagonals are equal
  - (i) rectangle, rhombus
  - (ii) parallelogram, square, rhombus, rectangle
  - (iii) square, kite
  - (iv) square, parallelogram
  - (v) square, rectangle
- 24. Name all quadrilaterals whose diagonals bisect each other
  - (i) rectangle, rhombus
  - (ii) parallelogram, square, rhombus, rectangle
  - (iii) square, parallelogram
  - (iv) square, kite
  - (v) square, rectangle
- 25. Name all quadrilaterals whose diagonals are perpendicular and bisect each other
  - (i) square, rectangle
  - (ii) square, parallelogram
  - (iii) square, kite
  - (iv) rectangle, rhombus
  - (v) square,rhombus
- 26. Name all quadrilaterals whose opposite sides are equal

- (i) rectangle, rhombus
- (ii) parallelogram, square, rhombus, rectangle
- (iii) square, parallelogram
- (iv) square, kite
- (v) square, rhombus
- 27. Name all quadrilaterals whose opposite sides are parallel
  - (i) square, kite
  - (ii) square, rectangle
  - (iii) rectangle, rhombus
  - (iv) parallelogram, square, rhombus, rectangle
  - (v) square, parallelogram
- 28. Name all quadrilaterals whose all sides are equal
  - (i) parallelogram, square, rhombus, rectangle
  - (ii) square, parallelogram
  - (iii) square, rhombus
  - (iv) square, rectangle
  - (v) square, kite
- 29. Name all quadrilaterals whose all angles are right angles
  - (i) square, rectangle
  - (ii) square, rhombus
  - (iii) rectangle, rhombus
  - (iv) parallelogram, square, rhombus, rectangle
  - (v) square, kite
- 30. Name all quadrilaterals whose opposite angles are equal
  - (i) square, kite
  - (ii) square, rectangle
  - (iii) square, parallelogram
  - (iv) parallelogram, square, rhombus, rectangle
  - (v) rectangle, rhombus
- 31. Name all quadrilaterals whose all angles are equal
  - (i) square, kite
  - (ii) square, rhombus
  - (iii) square, rectangle
  - (iv) rectangle, rhombus

- (v) parallelogram, square, rhombus, rectangle
- 32. Name all quadrilaterals whose adjacent angles are supplementary
  - (i) square, rectangle
  - (ii) square, parallelogram
  - (iii) square, kite
  - (iv) rectangle, rhombus
  - (v) parallelogram, square, rhombus, rectangle
- 33. Which of the following is a regular polygon with four sides?
  - (i) rectangle (ii) square (iii) rhombus (iv) trapezium (v) parallelogram
- 34. Which of the following statements are true?
  - a) In a parallelogram, both adjacent angles can be obtuse
  - b) In a parallelogram, adjacent angles are complementary
  - c) In a parallelogram, both adjacent angles can be right angles
  - d) In a parallelogram, adjacent angles are supplementary
  - e) In a parallelogram, both adjacent angles can be acute
  - (i) {e,a,c} (ii) {c,d} (iii) {b,d,c} (iv) {a,c} (v) {b,d}
- 35. Which of the following properties apply for a parallelogram?
  - a) Diagonals bisect each other
  - b) Opposite angles are equal
  - c) Diagonals are perpendicular to each other
  - d) Opposite sides are equal
  - e) Diagonals are equal to each other
  - f) Adjacent angles are supplementary
  - (i) {c,a} (ii) {c,e,d} (iii) {c,f,a} (iv) {a,b,d,f} (v) {e,b}
- 36. Which of the following properties apply for a trapezium?
  - (i) One pair of opposite sides are parallel
  - (ii) Adjacent angles are supplementary
  - (iii) Diagonals are equal
  - (iv) Diagonals are perpendicular to each other
  - (v) Diagonals bisect each other
- 37. Which of the following properties apply for a kite?
  - (i) All Adjacent sides are equal
  - (ii) Adjacent angles are equal
  - (iii) Opposite sides are parallel

- (iv) Diagonals are equal
- (v) Diagonals are perpendicular
- 38. Which of the following properties apply for a rhombus?

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- a) Diagonals are equal
- b) Adjacent angles are equal
- c) Diagonals bisect each other
- d) Adjacent sides are equal
- e) Opposite angles are equal
- f) Opposite sides are equal
- g) Opposite sides are parallel
- (i) {a,c}
- (ii) {b,d}
- (iii) {c,d,e,f,g}
- (iv) {a,b,e}
- (v)  $\{a,f,g\}$
- 39. Which of the following properties apply for a rectangle?
  - a) Opposite angles are equal
  - b) Adjacent angles are equal
  - c) Diagonals bisect each other
  - d) Opposite sides are parallel
  - e) Opposite sides are equal
  - f) Diagonals are equal
  - g) Adjacent sides are equal
  - (i)  $\{g,c\}$
  - (ii) {g,b}
  - (iii) {g,a}
  - (iv) {g,d,e}
  - (v) {a,b,c,d,e,f}
- 40. Which of the following statements are true?
  - a) Every rectangle is a parallelogram
  - b) Every rectangle is a rhombus
  - c) Every square is a rhombus
  - d) Every parallelogram is a trapezium
  - e) Every square is a rectangle
  - f) Every rhombus is a parallelogram
  - g) Every parallelogram is a rectangle
  - (i) {b,e,f} (ii) {a,c,d,e,f} (iii) {b,a} (iv) {b,g,d} (v) {g,c}

- 41. The figure formed by successively joining the mid-points of the parallelogram is
  - (i) square (ii) rectangle
  - (iii) rhombus (iv) parallelogram
- 42. The figure formed by successively joining the mid-points of the rectangle is
  - (i) rhombus (ii) rectangle
  - (iii) square (iv) parallelogram
- 43. The figure formed by successively joining the mid-points of the rhombus is
  - (i) rhombus (ii) parallelogram
  - (iii) square (iv) rectangle

## **Assignment Key**

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

- 40) (ii)
- 41) (iv)
- 42) (i)
- 43) (iv)