Name: Quadrilateral Properties

Chapter : Quadrilaterals

Grade: ICSE Grade VII

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- 1. Which of the following statements are true?
 - a) All trapeziums are parallelograms
 - b) All quadrilaterals are parallelograms
 - c) The set of parallelograms is a subset of the set of trapeziums
 - d) A parallelogram is a trapezium
 - e) All quadrilaterals are trapeziums
 - (i) {c,d} (ii) {b,d,c} (iii) {e,a,c} (iv) {b,d} (v) {a,c}
- 2. The sum of the interior angles of a quadrilateral is
 - (i) 270° (ii) 90° (iii) 360° (iv) 180°
- 3. If ABCD is an isosceles trapezium, $\angle A =$
 - (i) 90° (ii) ∠D (iii) ∠C (iv) ∠B
- 4. In which of the following are the diagonals equal?
 - (i) trapezium (ii) rhombus (iii) parallelogram (iv) None of these (v) rectangle
- 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) square (ii) rectangle (iii) trapezium (iv) None of these (v) rhombus

GHIJ is a rhombus in which $\angle G = 120^{\circ}$.

7. HJ

is the diagonal. Then $\triangle GHI$ is

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

BCDE is a rhombus in which $\angle B = 128^{\circ}$.

8. CE

is the diagonal. Then $\triangle BCD$ is

- (i) an obtuse angled triangle (ii) an equilateral triangle (iii) None of these (iv) a scalene triangle
- (v) an isosceles triangle
- 9. Which of the following statements are true?
 - a) Every parallelogram is a rectangle
 - b) Every rectangle is a parallelogram
 - c) Every rhombus is parallelogram
 - d) Every rectangle is a rhombus
 - e) Every square is a rectangle
 - (i) {b,c,e} (ii) {d,c} (iii) {a,d,e} (iv) {a,b} (v) {a,b,c}

	b) A square is a rectangle c) A square is a rhombus d) A parallelogram is a trapezium e) A rhombus is a square f) A trapezium is a parallelogram
	g) A parallelogram is a rhombus (i) {g,e,c} (ii) {f,b} (iii) {f,d,a} (iv) {e,a} (v) {a,b,c,d}
11.	Which of the following figures is a regular quadrilateral? K M I N N N N N N N N N N N N
12.	Every rhombus is a a) rectangle b) square c) trapezium d) triangle e) parallelogram (i) {b,e,c} (ii) {b,e} (iii) {d,a,c} (iv) {a,c} (v) {c,e}
13.	The diagonals are equal in a a) square b) trapezium c) parallelogram d) rectangle e) rhombus (i) {a,d} (ii) {c,d} (iii) {c,d,a} (iv) {b,a} (v) {e,b,a}
14.	Sum of the interior angles in a quadrilateral is (i) 365° (ii) 360° (iii) 370° (iv) 375° (v) 390°
15.	How many diagonals does a quadrilateral have?

10. Which of the following statements are true?

a) A rectangle is a parallelogram

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

	Which of the following are true?
	a) A rhombus is a square
	b) A parallelogram is a square
	c) A square is a rhombus
	d) A square is a rectangle
	e) A rectangle is a square
	(i) {e,a,c} (ii) {b,d} (iii) {c,d} (iv) {a,c} (v) {b,d,c}
17.	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
	e) A rectaligle is a parallelogram
	(i) {b,e} (ii) {a,b} (iii) {d,a,b} (iv) {c,e,b} (v) {c,e}
18.	Which of the following are true?
	a) A rhombus is a trapeziumb) A trapezium is a parallelogram
	c) A trapezium is a rhombus
	d) A rectangle is a square
	e) A parallelogram is a trapezium
	(i) {c,e} (ii) {d,b,a} (iii) {b,a} (iv) {a,e} (v) {c,e,a}
19.	Which of the following are true?
19.	Which of the following are true? a) A parallelogram is a rhombus
19.	
19.	a) A parallelogram is a rhombus b) A trapezium is a parallelogram c) A rhombus is a parallelogram
19.	a) A parallelogram is a rhombus b) A trapezium is a parallelogram c) A rhombus is a parallelogram d) A kite is a rhombus
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	a) A parallelogram is a rhombus b) A trapezium is a parallelogram c) A rhombus is a parallelogram d) A kite is a rhombus e) A rhombus is a kite (i) {c,e} (ii) {b,e,c} (iii) {d,a,c} (iv) {a,c} (v) {b,e} Which of the following are true?
	a) A parallelogram is a rhombus b) A trapezium is a parallelogram c) A rhombus is a parallelogram d) A kite is a rhombus e) A rhombus is a kite (i) {c,e} (ii) {b,e,c} (iii) {d,a,c} (iv) {a,c} (v) {b,e} Which of the following are true? a) A parallelogram is a rhombus
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	a) A parallelogram is a rhombus b) A trapezium is a parallelogram c) A rhombus is a parallelogram d) A kite is a rhombus e) A rhombus is a kite (i) {c,e} (ii) {b,e,c} (iii) {d,a,c} (iv) {a,c} (v) {b,e} Which of the following are true? a) A parallelogram is a rhombus b) A rectangle is a rhombus
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20.	a) A parallelogram is a rhombus b) A trapezium is a parallelogram c) A rhombus is a parallelogram d) A kite is a rhombus e) A rhombus is a kite (i) {c,e} (ii) {b,e,c} (iii) {d,a,c} (iv) {a,c} (v) {b,e} Which of the following are true? a) A parallelogram is a rhombus b) A rectangle is a rhombus c) A square is a rectangle d) A square is a trapezium e) A trapezium is a square (i) {b,d,c} (ii) {a,c} (iii) {b,d} (iv) {c,d} (v) {e,a,c} The quadrilateral whose diagonals are equal and are perpendicular bisectors is a

	(i) parallelogram, square, rhombus, rectangle (ii) square, parallelogram (iii) square, rectangle (iv) rectangle, rhombus (v) square, rhombus
24.	Name all quadrilaterals whose diagonals bisect each other (i) parallelogram, square, rhombus, rectangle (ii) square, rectangle (iii) square, kite (iv) square, rhombus (v) square, parallelogram
25.	Name all quadrilaterals whose diagonals are perpendicular and bisect each other (i) rectangle,rhombus (ii) square,parallelogram (iii) square,rhombus (iv) square,rectangle (v) parallelogram,square,rhombus,rectangle
26.	Name all quadrilaterals whose opposite sides are equal (i) square,rectangle (ii) parallelogram,square,rhombus,rectangle (iii) square,parallelogram (iv) square,rhombus (v) rectangle,rhombus
27.	Name all quadrilaterals whose opposite sides are parallel (i) square,rectangle (ii) square,parallelogram (iii) parallelogram,square,rhombus,rectangle (iv) square,rhombus (v) rectangle,rhombus
28.	Name all quadrilaterals whose all sides are equal (i) parallelogram, square, rhombus, rectangle (ii) square, rectangle (iii) rectangle, rhombus (iv) square, rhombus (v) square, parallelogram
29.	Name all quadrilaterals whose all angles are right angles (i) square,rectangle (ii) square,parallelogram (iii) parallelogram,square,rhombus,rectangle (iv) square,rhombus (v) square,kite
30.	Name all quadrilaterals whose opposite angles are equal (i) square,parallelogram (ii) rectangle,rhombus (iii) square,kite (iv) square,rhombus (v) parallelogram,square,rhombus,rectangle
31.	Name all quadrilaterals whose all angles are equal (i) square,parallelogram (ii) square,kite (iii) square,rhombus (iv) square,rectangle (v) rectangle,rhombus
32.	Name all quadrilaterals whose adjacent angles are supplementary (i) square,parallelogram (ii) square,rhombus (iii) parallelogram,square,rhombus,rectangle (iv) rectangle,rhombus (v) square,rectangle
33.	Which of the following is a regular polygon with four sides? (i) parallelogram (ii) trapezium (iii) square (iv) rectangle (v) rhombus

23. Name all quadrilaterals whose diagonals are equal

	 a) In a parallelogram, adjacent angles are supplementary b) In a parallelogram, both adjacent angles can be right angles c) In a parallelogram, both adjacent angles can be obtuse d) In a parallelogram, both adjacent angles can be acute e) In a parallelogram, adjacent angles are complementary
	(i) {d,b,a} (ii) {a,b} (iii) {d,b} (iv) {e,c,a} (v) {c,a}
35.	Which of the following properties apply for a parallelogram?
	 a) Opposite angles are equal b) Diagonals bisect each other c) Diagonals are equal to each other d) Opposite sides are equal e) Diagonals are perpendicular to each other f) Adjacent angles are supplementary (i) {e,b} (ii) {c,f,a} (iii) {a,b,d,f} (iv) {c,a} (v) {c,e,d}
36	Which of the following properties apply for a trapezium ?
50.	(i) Diagonals are perpendicular to each other (ii) Adjacent angles are supplementary
	(iii) Diagonals are equal (iv) Both adjacent angles are obtuse (v) One pair of opposite sides are parallel
37.	Which of the following properties apply for a kite ?
	(i) All Adjacent sides are equal (ii) Diagonals are equal (iii) Opposite sides are parallel
	(iv) Diagonals are perpendicular (v) Adjacent angles are equal
38.	Which of the following properties apply for a rhombus ?
	a) Diagonals are equal
	h) Adiacont cidae are acual
	b) Adjacent sides are equal
	c) Opposite sides are equal
	c) Opposite sides are equal d) Adjacent angles are equal
	c) Opposite sides are equal
	c) Opposite sides are equal d) Adjacent angles are equal e) Opposite angles are equal
	c) Opposite sides are equal d) Adjacent angles are equal e) Opposite angles are equal f) Opposite sides are parallel
39.	c) Opposite sides are equal d) Adjacent angles are equal e) Opposite angles are equal f) Opposite sides are parallel g) Diagonals bisect each other
39.	c) Opposite sides 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,e} (ii) {a,b} (iii) {d,c} (iv) {b,c,e,f,g} (v) {a,f,g} Which of the following properties apply for a rectangle? a) Diagonals are equal
39.	c) Opposite sides 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,e} (ii) {a,b} (iii) {d,c} (iv) {b,c,e,f,g} (v) {a,f,g} Which of the following properties apply for a rectangle ? a) Diagonals are equal b) Opposite sides are parallel
39.	c) Opposite sides 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,e} (ii) {a,b} (iii) {d,c} (iv) {b,c,e,f,g} (v) {a,f,g} Which of the following properties apply for a rectangle? a) Diagonals are equal b) Opposite sides are parallel c) Adjacent angles are equal
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34. Which of the following statements are true?

- 40. Which of the following statements are true?
 - a) Every rectangle is a parallelogram
 - b) Every parallelogram is a rectangle
 - c) Every rhombus is a parallelogram
 - d) Every square is a rectangle
 - e) Every square is a rhombus
 - f) Every parallelogram is a trapezium
 - g) Every rectangle is a rhombus
 - (i) $\{g,c\}$ (ii) $\{b,e,f\}$ (iii) $\{a,c,d,e,f\}$ (iv) $\{b,g,d\}$ (v) $\{b,a\}$

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

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