Name: Quadrilateral Properties

Chapter: Understanding Quadrilaterals

Grade: CBSE Grade VIII

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- 1. The diagonals are equal in a
 - a) square
 - b) parallelogram
 - c) trapezium
 - d) rectangle
 - e) rhombus
 - (i) {c,d} (ii) {b,a} (iii) {a,d} (iv) {e,b,a} (v) {c,d,a}
- 2. Sum of the interior angles in a quadrilateral is
 - (i) 370° (ii) 365° (iii) 375° (iv) 360° (v) 390°
- 3. How many diagonals does a quadrilateral have?
 - (i) 3 (ii) 2 (iii) 0 (iv) 4 (v) 1
- 4. Which of the following are true?
 - a) A square is a rhombus
 - b) A square is a rectangle
 - c) A rhombus is a square
 - d) A rectangle is a square
 - e) A parallelogram is a square
 - (i) $\{c,a\}$ (ii) $\{a,b\}$ (iii) $\{d,b,a\}$ (iv) $\{d,b\}$ (v) $\{e,c,a\}$
- 5. Which of the following are true?
 - a) A rectangle is a parallelogram
 - b) A parallelogram is a rectangle
 - c) A parallelogram is a square
 - d) A square is a parallelogram
 - e) A rectangle is a square
 - (i) {e,b,a} (ii) {a,d} (iii) {b,a} (iv) {c,d,a} (v) {c,d}
- 6. Which of the following are true?
 - a) A parallelogram is a trapezium
 - b) A rectangle is a square
 - c) A trapezium is a rhombus
 - d) A trapezium is a parallelogram
 - e) A rhombus is a trapezium
 - (i) $\{b,a\}$ (ii) $\{a,e\}$ (iii) $\{d,b,a\}$ (iv) $\{c,e,a\}$ (v) $\{c,e\}$

7.	Which of the following are true?
	 a) A trapezium is a parallelogram b) A rhombus is a kite c) A kite is a rhombus d) A rhombus is a parallelogram e) A parallelogram is a rhombus
	(i) {c,d,b} (ii) {e,a,b} (iii) {a,b} (iv) {b,d} (v) {c,d}
8.	Which of the following are true?
	 a) A parallelogram is a rhombus b) A square is a rectangle c) A rectangle is a rhombus d) A trapezium is a square e) A square is a trapezium
	(i) {d,a,b} (ii) {a,b} (iii) {c,e,b} (iv) {b,e} (v) {c,e}
9.	The quadrilateral whose diagonals are equal and are perpendicular bisectors is a (i) rectangle (ii) trapezium (iii) square (iv) rhombus (v) parallelogram
10	. The diagonals do not divide the quadrilateral into congruent triangles in which figure? (i) square (ii) rhombus (iii) rectangle (iv) trapezium (v) parallelogram
11	. Name all quadrilaterals whose diagonals are equal (i) square,rectangle (ii) square,parallelogram (iii) square,rhombus (iv) parallelogram,square,rhombus,rectangle (v) rectangle,rhombus
12	. Name all quadrilaterals whose diagonals bisect each other (i) square,kite (ii) square,rectangle (iii) square,parallelogram (iv) square,rhombus (v) parallelogram,square,rhombus,rectangle
13	. Name all quadrilaterals whose diagonals are perpendicular and bisect each other (i) square,rhombus (ii) rectangle,rhombus (iii) square,rectangle (iv) square,kite (v) parallelogram,square,rhombus,rectangle
14	. Name all quadrilaterals whose opposite sides are equal (i) square,rhombus (ii) parallelogram,square,rhombus,rectangle (iii) rectangle,rhombus (iv) square,kite (v) square,rectangle
15	. Name all quadrilaterals whose opposite sides are parallel (i) square,kite (ii) square,parallelogram (iii) square,rectangle (iv) square,rhombus (v) parallelogram,square,rhombus,rectangle
16	. Name all quadrilaterals whose all sides are equal (i) parallelogram,square,rhombus,rectangle (ii) square,rhombus (iii) square,kite (iv) square,rectangle (v) square,parallelogram

17.	Name all quadrilaterals whose all angles are right angles (i) square,parallelogram (ii) parallelogram,square,rhombus,rectangle (iii) rectangle,rhombus (iv) square,rectangle (v) square,kite
18.	Name all quadrilaterals whose opposite angles are equal (i) parallelogram, square, rhombus, rectangle (ii) rectangle, rhombus (iii) square, parallelogram (iv) square, rectangle (v) square, kite
19.	Name all quadrilaterals whose all angles are equal (i) square,rectangle (ii) rectangle,rhombus (iii) square,parallelogram (iv) square,rhombus (v) square,kite
20.	Name all quadrilaterals whose adjacent angles are supplementary (i) square,kite (ii) square,rectangle (iii) rectangle,rhombus (iv) parallelogram,square,rhombus,rectangle (v) square,rhombus
21.	Which of the following is a regular polygon with four sides? (i) square (ii) rectangle (iii) rhombus (iv) trapezium (v) parallelogram
22.	Which of the following statements are true? a) All trapeziums are parallelograms b) All quadrilaterals are parallelograms c) All quadrilaterals are trapeziums d) The set of parallelograms is a subset of the set of trapeziums e) A parallelogram is a trapezium (i) {d,e} (ii) {c,a,d} (iii) {a,d} (iv) {b,e} (v) {b,e,d}
23.	If ABCD is an isosceles trapezium, $\angle D =$ (i) $\angle B$ (ii) $\angle A$ (iii) 90° (iv) $\angle C$
24.	In which of the following are the diagonals equal ? (i) None of these (ii) rectangle (iii) parallelogram (iv) trapezium (v) rhombus
25.	If one of the angles of a rhombus is a right angle, it is a (i) parallelogram (ii) rectangle (iii) None of these (iv) square (v) trapezium
26.	If the two diagonals of a parallelogram are equal and right bisectors of each other, it is a (i) rhombus (ii) trapezium (iii) square (iv) rectangle (v) None of these
27.	OPQR is a rhombus in which $\angle O=120^\circ$. \overline{PR} is the diagonal. Then $\triangle OPQ$ is (i) an isosceles triangle (ii) an obtuse angled triangle (iii) a scalene triangle (iv) None of these (v) an equilateral triangle

28.	is the diagonal. Then △JKL is (i) an isosceles triangle (ii) an equilateral triangle (iii) a scalene triangle (iv) None of these (v) an obtuse angled triangle
29.	Which of the following statements are true? a) Every square is a rectangle b) Every rectangle is a rhombus c) Every rectangle is a parallelogram d) Every rhombus is parallelogram e) Every parallelogram is a rectangle (i) {b,a,c} (ii) {a,c,d} (iii) {b,a} (iv) {e,c} (v) {b,e,d}
30.	Which of the following have point symmetry? a) quadrilateral b) rhombus c) trapezium d) rectangle e) square f) parallelogram (i) {a,f,b} (ii) {c,d} (iii) {b,d,e,f} (iv) {a,b} (v) {a,c,e}
31.	Which of the following statements are true? a) A square is a rectangle b) A parallelogram is a trapezium c) A parallelogram is a rhombus d) A rhombus is a square e) A trapezium is a parallelogram f) A square is a rhombus g) A rectangle is a parallelogram (i) {c,a} (ii) {a,b,f,g} (iii) {d,g,a} (iv) {e,c,f} (v) {d,b}
32.	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, both adjacent angles can be acute d) In a parallelogram, adjacent angles are complementary e) In a parallelogram, adjacent angles are supplementary (i) {a,b} (ii) {c,e,b} (iii) {b,e} (iv) {d,a,b} (v) {c,e}

JKLM is a rhombus in which $\angle J = 115^{\circ}$.

33.	Which of the following properties apply for a parallelogram ?
	a) Opposite angles are equal
	b) Diagonals are equal to each other
	c) Adjacent angles are supplementary
	d) Opposite sides are equal
	e) Diagonals bisect each other f) Diagonals are perpendicular to each other
	1) Diagonals are perpendicular to each other
	(i) {a,c,d,e} (ii) {b,f,d} (iii) {b,a} (iv) {b,e,a} (v) {f,c}
34.	Which of the following properties apply for a trapezium ?
	(i) One pair of opposite sides are parallel (ii) Diagonals are perpendicular to each other
	(iii) Adjacent angles are supplementary (iv) Diagonals are equal (v) Both adjacent angles are obtuse
35.	Which of the following properties apply for a kite ?
	(i) Opposite angles are parallel (ii) Opposite sides are parallel (iii) All Adjacent sides are equal
	(iv) Adjacent angles are equal (v) Diagonals are perpendicular
36.	Which of the following properties apply for a rhombus ?
	a) Opposite angles are equal
	b) Opposite sides are equal
	c) Adjacent angles are equal
	d) Opposite sides are parallel
	e) Diagonals are equal
	f) Adjacent sides are equal
	g) Diagonals bisect each other
	(i) {a,b,d,f,g} (ii) {c,a} (iii) {c,e,d} (iv) {c,f,g} (v) {e,b}
37.	Which of the following properties apply for a rectangle ?
	a) Opposite sides are equal
	b) Adjacent sides are equal
	c) Opposite sides are parallel
	d) Adjacent angles are equal e) Diagonals bisect each other
	f) Opposite angles are equal
	g) Diagonals are equal
	(i) {b,a} (ii) {a,c,d,e,f,g} (iii) {b,c} (iv) {b,e,f} (v) {b,d}
38.	Which of the following statements are true?
	a) Every rectangle is a rhombus
	b) Every parallelogram is a trapezium
	c) Every rectangle is a parallelogram
	d) Every square is a rectangle
	e) Every rhombus is a parallelogram f) Every square is a rhombus
	g) Every parallelogram is a rectangle
	g, =.e., pa. anerogram is a rectangle
	(i) {b,c,d,e,f} (ii) {a,e,f} (iii) {a,b} (iv) {a,g,d} (v) {g,c}

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

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