Name: Quadrilateral Properties

Chapter : Quadrilaterals

Grade: SSC Grade IX

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۱. ۱	Which of	the fo	llowing i	s a re	gular p	olygon	with	four	sides?	
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(i) rectangle (ii) square (iii) rhombus (iv) parallelogram (v) trapezium

2. Which of the following statements are true?

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

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

3. Which of the following statements are true?

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

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

4. Which of the following statements are true?

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

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

5. Every rhombus is a

- a) parallelogram
- b) trapezium
- c) square
- d) triangle
- e) rectangle
- (i) $\{d,b\}$ (ii) $\{c,a\}$ (iii) $\{e,c,a\}$ (iv) $\{a,b\}$ (v) $\{d,b,a\}$

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

13.	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 square is a trapezium e) A rectangle is a rhombus
	(i) {e,a,c} (ii) {a,c} (iii) {c,d} (iv) {b,d} (v) {b,d,c}
14.	The quadrilateral whose diagonals are equal and are perpendicular bisectors is a (i) square (ii) trapezium (iii) rhombus (iv) parallelogram (v) rectangle
15.	The diagonals do not divide the quadrilateral into congruent triangles in which figure? (i) rhombus (ii) parallelogram (iii) square (iv) rectangle (v) trapezium
16.	Name all quadrilaterals whose diagonals are equal (i) square,kite (ii) square,parallelogram (iii) parallelogram,square,rhombus,rectangle (iv) square,rectangle (v) rectangle,rhombus
17.	Name all quadrilaterals whose diagonals bisect each other (i) parallelogram, square, rhombus, rectangle (ii) rectangle, rhombus (iii) square, rectangle (iv) square, rhombus (v) square, parallelogram
18.	Name all quadrilaterals whose diagonals are perpendicular and bisect each other (i) square,rhombus (ii) rectangle,rhombus (iii) parallelogram,square,rhombus,rectangle (iv) square,parallelogram (v) square,kite
19.	Name all quadrilaterals whose opposite sides are equal (i) square,kite (ii) square,parallelogram (iii) square,rhombus (iv) square,rectangle (v) parallelogram,square,rhombus,rectangle
20.	Name all quadrilaterals whose opposite sides are parallel (i) parallelogram, square, rhombus, rectangle (ii) square, kite (iii) square, rectangle (iv) square, rhombus (v) square, parallelogram
21.	Name all quadrilaterals whose all sides are equal (i) square,rectangle (ii) square,rhombus (iii) parallelogram,square,rhombus,rectangle (iv) rectangle,rhombus (v) square,parallelogram
22.	Name all quadrilaterals whose all angles are right angles (i) parallelogram, square, rhombus, rectangle (ii) rectangle, rhombus (iii) square, rectangle (iv) square, kite (v) square, rhombus
23.	Name all quadrilaterals whose opposite angles are equal (i) square,rhombus (ii) rectangle,rhombus (iii) square,parallelogram (iv) parallelogram square rhombus rectangle (v) square kite

24.	Name all quadrilaterals whose all angles are equal (i) square,parallelogram (ii) parallelogram,square,rhombus,rectangle (iii) rectangle,rhombus (iv) square,kite (v) square,rectangle
25.	Name all quadrilaterals whose adjacent angles are supplementary (i) parallelogram, square, rhombus, rectangle (ii) square, rhombus (iii) square, parallelogram (iv) square, kite (v) rectangle, rhombus
26.	In which of the following are the diagonals equal ? (i) rectangle (ii) None of these (iii) rhombus (iv) trapezium (v) parallelogram
27.	If one of the angles of a rhombus is a right angle, it is a (i) rectangle (ii) None of these (iii) parallelogram (iv) trapezium (v) square
28.	If the two diagonals of a parallelogram are equal and right bisectors of each other, it is a (i) None of these (ii) trapezium (iii) square (iv) rectangle (v) rhombus
29.	Which of the following have point symmetry ? a) square b) trapezium c) rectangle d) quadrilateral e) rhombus f) parallelogram (i) {b,d,e} (ii) {d,c} (iii) {a,c,e,f} (iv) {b,a} (v) {b,f,a}
30.	Which of the following statements are true? a) In a parallelogram, both adjacent angles can be acute b) In a parallelogram, both adjacent angles can be right angles c) In a parallelogram, adjacent angles are supplementary d) In a parallelogram, both adjacent angles can be obtuse e) In a parallelogram, adjacent angles are complementary (i) {d,c} (ii) {a,b} (iii) {b,c} (iv) {d,c,b} (v) {e,a,b}
31.	Which of the following properties apply for a parallelogram ? a) Diagonals bisect each other b) Diagonals are perpendicular to each other c) Diagonals are equal to each other d) Adjacent angles are supplementary e) Opposite angles are equal f) Opposite sides are equal (i) {b,f,a} (ii) {c,d} (iii) {b,a} (iv) {a,d,e,f} (v) {b,c,e}
32.	Which of the following properties apply for a trapezium ? (i) Diagonals bisect each other (ii) Both adjacent angles are obtuse (iii) Diagonals are equal (iv) Adjacent angles are supplementary (v) One pair of opposite sides are parallel

	(i) Diagonals are equal (ii) Opposite sides are parallel (iii) All Adjacent sides are equal
	(iv) Diagonals are perpendicular (v) Adjacent angles are equal
34.	Which of the following properties apply for a rhombus ? a) Opposite angles are equal
	b) Adjacent sides are equal c) Diagonals are equal
	d) Diagonals bisect each other e) Adjacent angles are equal
	f) Opposite sides are equal g) Opposite sides are parallel
	(i) {c,e,d} (ii) {c,a} (iii) {c,f,g} (iv) {a,b,d,f,g} (v) {e,b}
35.	Which of the following properties apply for a rectangle ?
	a) Opposite sides are equal
	b) Adjacent angles are equal c) Adjacent sides are equal
	d) Opposite sides are parallel
	e) Opposite angles are equal
	f) Diagonals are equal g) Diagonals bisect each other
	(i) {a,b,d,e,f,g} (ii) {c,d} (iii) {c,e,f} (iv) {c,a} (v) {c,b}
36.	Which of the following statements are true?
	a) Every parallelogram is a trapezium
	b) Every rhombus is a parallelogram
	c) Every square is a rectangle
	d) Every square is a rhombus e) Every parallelogram is a rectangle
	f) Every rectangle is a parallelogram
	g) Every rectangle is a rhombus
	(i) {e,a} (ii) {g,b} (iii) {e,d,f} (iv) {a,b,c,d,f} (v) {e,g,c}
37.	The figure formed by successively joining the mid-points of the sides of a parallelogram is
	(i) rectangle (ii) square (iii) rhombus (iv) parallelogram
38.	The figure formed by successively joining the mid-points of the sides of a rectangle is
	(i) square (ii) parallelogram (iii) rhombus (iv) rectangle
39.	The figure formed by successively joining the mid-points of the sides of a rhombus is
	(i) rhombus (ii) parallelogram (iii) square (iv) rectangle

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

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

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