1. Which of the following are true?

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

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

2. Which of the following are true?

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

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

3. Which of the following are true?

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

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

4. Which of the following are true?

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

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

5. Which of the following are true?

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

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

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

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

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

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

8. Name all quadrilaterals whose diagonals are equal

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

   (v) parallelogram,square,rhombus,rectangle

9. Name all quadrilaterals whose diagonals bisect each other

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

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

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

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

    (v) square,parallelogram

11. Name all quadrilaterals whose opposite sides are equal

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

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

12. 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

13. Name all quadrilaterals whose all sides are equal

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

    (v) parallelogram,square,rhombus,rectangle

14. Name all quadrilaterals whose all angles are right angles

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

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

15. Name all quadrilaterals whose opposite angles are equal

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

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

16. Name all quadrilaterals whose all angles are equal

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

    (v) square,rhombus

17. Name all quadrilaterals whose adjacent angles are supplementary

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

    (v) rectangle,rhombus

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

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

19. Which of the following statements are true?

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

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

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

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

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

    (i) ∠D  (ii) ∠A  (iii) 90°  (iv) ∠B

22. In which of the following are the diagonals equal ?

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

23. If one of the angles of a rhombus is a right angle, it is a

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

24. 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) None of these  (v) rectangle

25. DEFG is a rhombus in which ∠D = 120° . $\overline{EG}$
    is the diagonal. Then △DEF is

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

    (v) an isosceles triangle

26. FGHI is a rhombus in which ∠F = 86° . $\overline{GI}$
    is the diagonal. Then △FGH is

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

    (v) a scalene triangle

27. Which of the following statements are true?

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

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

28. Which of the following statements are true?

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

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

29. Every rhombus is a

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

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

30. The diagonals are equal in a

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

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

31. Which of the following statements are true?

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

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

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

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

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

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

   (i)  Both adjacent angles are obtuse  (ii)  One pair of opposite sides are parallel

   (iii)  Diagonals bisect each other  (iv)  Adjacent angles are supplementary

   (v)  Diagonals are perpendicular to each other

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

   (i) Opposite sides are parallel  (ii) Opposite sides are equal  (iii) Adjacent angles are equal

   (iv) Diagonals are perpendicular  (v) All Adjacent sides are equal

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

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

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

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

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

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

37. Which of the following statements are true?

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

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

## Assignment Key

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