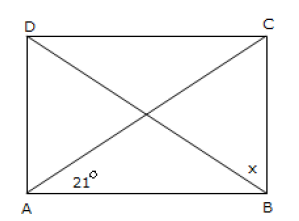
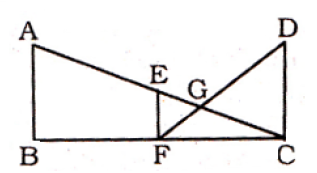
**Geometry – Quadrilaterals**

1. C:\Users\tsuser.PC\Desktop\final.pngA Triangle and a parallelogram are on the same base and between the same parallel lines what is the area of the triangle if the area of the parallelogram is 48 sqcm?   
   a) 36 sq cm b) 24 sq cm c) 16 sq cm d) 20 sq cm
2. C:\Users\tsuser.PC\Desktop\final.pngSide AB of a rectangle ABCD is divided into 4 equal parts by points x, y and z. The ratio of area of xyc and Area of the rectangle ABCD is   
   a) 1/2 b) 1/6 c) 1/3 d) 1/8
3. C:\Users\tsuser.PC\Desktop\final.pngABCD is a cyclic trapezium with AB//DC and AB is the diameter of the circle. If CAB = 30, then ADC is   
   a) 60 b) 120 c) 150 d) 30
4. C:\Users\tsuser.PC\Desktop\final.pngAll sides of a quadrilateral ABCD touch a circle. If AB = 6cm, BC = 7.5 cm, CD = 3cm, then DA = --   
   a) 3.5 cm b) 4.5cm c) 2 cm d) 1.5 cm
5. C:\Users\tsuser.PC\Desktop\final.pngABCD is a quadrilateral in which diagonal BD = 64 cm, AL BD, such that AL = 13.2 cm and c = 16.8 cm. The area of the quadrilateral ABCD sq cm is   
   a) 480 b) 690 c) 360 d) 960
6. C:\Users\tsuser.PC\Desktop\final.pngThe length of the diagonal BD of the parallelogram ABCD is 18 cm. If P and Q are the centroids of the ABC and ADC respectively, then the length of the line segment PQ is   
   a) 4 cm b) 6 cm c) 9 cm d) 12 cm
7. C:\Users\tsuser.PC\Desktop\final.pngABCD is a square M is the mid-point of AB and N is the mid-point of BC, DM and AN intersect at the point O which of the following is correct?   
   a) O A: OM = 1:2 b) AN = MD c) ADM = AND   
   d) AMD = BAN
8. C:\Users\tsuser.PC\Desktop\final.pngEach interior angle of a regular polygon is 18 more than eight times of an exterior angle. What is the number of sides in the polygon?   
   a) 20 b) 10 c) 15 d) 25
9. ABCD is a rectangle, CAB = 21. If CAD = x, then x is in the given figure:  
     
   a) 69 b) 70 c) 21 d) None of these
10. If an angle of a parallelogram is two-fourth of its adjacent angle the angles of parallelogram are-   
    a) 120, 60, 120, 60 b) 100 , 80 , 100, 80 c) 110, 70, 110, 70   
    d) None of these
11. If diagonals of a rhombus is 18 cm and 24 cm, then sides are   
    a) 12 cm each b) 15 cm each   
    c) 13cm each d) None of these
12. Two parallelograms stand on equal bases and between the same parallels. The ratio of their area is-   
    a) 1:2 b) 2:1 c) 1:1 d) 1:3
13. If ABCD is a rectangle. E and F are the mid points of BC and AC respectively and G is any point on EF, then GAB equal -   
    a) 1 / 2 ( ABCD) b) 1 /3 ( ABCD)   
    c) 1 / 4 ( ABCD) d) 1 / 6 ( ABCD)
14. A square and an equilateral triangle have equal perimeters. If the diagonal of the square is 12, then the area of triangle is   
    a) 24 b) 24 c) 48 d) 64
15. The bisectors of any two adjacent angles of a parallelogram intersect at\_   
    a) 30 b) 45 c) 60 d) 90
16. If the angles of a regular polygon is 162, then the number of sales of the polygon is\_   
    a) 10 b) 20 c) 30 d) 40
17. A right angled triangle and square have the same base. If the area of the triangle is equal to that of the square, then the ratio of the height of the triangle to its base is given by \_   
    a) 2:1 b) 2:3 c) 3: 4 d) 1:3
18. There are no corners in a closed figure. If the sum of the internal angles is 13, then the value of n will be   
    a) 6 b) 7 c) 15 d) 12
19. The length of a side of a rhombus is 5 m and one of its diagonals is of length 8 m. the length of other diagonal is \_   
    a) 5 m b) 7 m c) 6 m d) 8 m
20. The diagonal of a square is 4 cm. The diagonal of another square whose area is double that of the first square is:   
    a) 8 cm b) 16 cm c) cm d) 8 m
21. The areas of a square and a rectangle are equal. The length of the rectangle is greater than the length of any side of the square by 5 cm and the breadth is less by 3 cm. Find the perimeter of the rectangle.   
    a) 17 cm b) 26 cm c) 30 cm d) 34 cm
22. The perimeter of a rhombus is 40cm. If one of the diagonals be 12cm long, what is the length of the other diagonal?   
    a) 12 cm b) 136 cm c) 16 cm d) 44 cm
23. The perimeter of a rhombus is 40 m and its height is 5 m. Its area is :   
    a) 60 m2 b) 50 m2 c) 45 m2 d) 55 m2
24. ABCD is a trapezium, such that AB = CD and AD // BC. AD = 5cm, BC = 9cm. If area of ABCD is 35 sq.cm, then CD is:   
    a) 29 cm b) 5 cm c) 6 cm d) 21 cm
25. The parallel sides of a trapezium are 24m and 52m. if its other two sides are 26m and 30m, what is the area of the trapezium?   
    a) 912 sq. m b) 782 sq. m c) 675 sq. m d) 812 sq. m

**Answers:**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 - b | 2 - d | 3 - b | 4 - d | 5 - d | 6 - b | 7 - b | 8 - a | 9 - a | 10 – a |
| 11 – b | 12 - c | 13 - c | 14 – d | 15 – d | 16 – b | 17 – a | 18 – c | 19 – c | 20 – d |
| 21 - d | 22 - c | 23 - b | 24 – a | 25 – a |

**Additional Examples**

1. C:\Users\tsuser.PC\Desktop\final.pngIn the adjoining figure AB, EF and CD are parallel lines. Given that GE = 5cm. GC = 10cm and DC = 18cm, then EF is equal to :   
     
   a) 11 cm b) 5 cm c) 6 cm d) 9 cm
2. C:\Users\tsuser.PC\Desktop\final.pngEach interior angle of a regular polygon is three times its exterior angle, and then the number of sides of the regular polygon is :   
   a) 9 b) 8 c) 10 d) 7
3. C:\Users\tsuser.PC\Desktop\final.pngABCD is a cyclic quadrilateral. The side AB is extended to E in such a way that BE = BC. If ADC = 70, BAD = 95, then DCE is equal to   
   a) 140 b) 120 c) 165 d) 110
4. C:\Users\tsuser.PC\Desktop\final.pngMeasure of each interior angle of a regular polygon can never be:   
   a) 150 b) 105 c) 108 d) 144
5. C:\Users\tsuser.PC\Desktop\final.pngABCD is a rhombus whose side AB = 4cm and ABC = 120, then what can be the maximum perimeter of a semicircle on the diagonal BD in cm?   
   a) 4 + b) 8 + 4 c) 2 + 4 d) (2 + )
6. C:\Users\tsuser.PC\Desktop\final.pngIf the sum of the interior angles of a regular polygon be 720, then what is the half of the area of the polygon where each side measures (in cm) 2/3rd of the number of sides of the polygon?   
   a) 24√3 b) 16√3 c) 12√3 d) 12
7. C:\Users\tsuser.PC\Desktop\final.pngA parallelogram ABCD has sides AB = 24cm and AD = 16cm. The distance between the sides AB and DC is 10cm. Find the distance between the sides AD and BC.   
   a) 16cm b) 18 cm c) 15cm d) 26cm
8. C:\Users\tsuser.PC\Desktop\final.pngABCD is a rhombus. AB is produced to F and BA is produced to E such that AB = AE = BF.   
   Then:   
   a) ED > CF b) ED CF c) ED2 + CF2 = EF2 d) ED CF
9. C:\Users\tsuser.PC\Desktop\final.pngA square ABCD is inscribed in a circle of unit radius. Semi-circles are described on each side as a diameter. The area of the region overlapped by the four semicircles and the circle is   
   a) 2 - √3 sq. unit b) 2 - sq. unit   
   c) 2 - sq. unit d) – 2 sq. unit
10. C:\Users\tsuser.PC\Desktop\final.pngABCD is a parallelogram in which diagonals AC and BD intersect at O. If E,F, G and H are the mid points of AO, DO, CO and BO respectively, then the ratio of the perimeter of the quadrilateral EFGH to the perimeter of parallelogram ABCD is   
    a) 1:4 b) 2:3 c) 1 :2 d) 1:3
11. C:\Users\tsuser.PC\Desktop\final.pngThe number of sides in two regular polygons are as 5 : 4 and difference between their angles is 6 . The number of sides in the polygons are   
    a) 12 and 15 b) 12 and 13 c) 20 and 16 d) 15 and 12
12. C:\Users\tsuser.PC\Desktop\final.pngThe area of an isosceles trapezium is 176 cm2 and the height is th of the sum of its parallel sides. If the ratio of the length of the parallel sides is 4:7, then the length of a diagonal (in cm) is   
    a) 28 b) c) 2 d) 24

**Answers:**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 - d | 2 - b | 3 - a | 4 - b | 5 - d | 6 - c | 7 - c | 8 - b | 9 - b | 10 – c |
| 11 – d | 12 - c |