# Chathurbhujapparappu





ABCD is a rectangle with sides 8cm and 6cm PQRS is a rhombus obtained by joining the midpoints of the sides of the rectangle. find[Marks :(2)]

#### a)The lengths of the diagonals of PQRS?

#### b)The area of PQRS?

Ans. a)length of diogonals 8cm and 6cm

b)Area of PQRS =  $x8 \times 6 = 24$ sqcm

Question.2. One of the diagonals of a rhombus is 26 cm long and its area is 260 sq.cm . Find the length of the other diagonal?[Marks :(2)]

Ans. 
$$\frac{1}{2} \times d1 \times d2 = 260$$
  
 $\frac{1}{2} \times 26 \times d2 = 260$   
 $d2 = \frac{260}{13} = 20 \text{ cm}$ 

#### Question.3. Calculate the area of the rhombus with diagonals 12cm and 16 cm[Marks :(2)]

**Ans.** Area = x 16 x 12 = 96 sq.cm

## Question.4.



In the parallelogram ABCD, AB = 10cm BD = 8cm ,The distance between AB and CD is 4 cm[Marks :(3)]

## 1. Fnd the area of ABCD?

2. Find the distance between AD and BC?

Ans.

- 1. Area of parallelogram ABCD = 10X4 = 40cm2
- 2. AD x distance between the parallel line = 40

distance between the parallel line =  $\frac{40}{8}$  = 5 cm

Question.5. In the figure ABCD is a parallelogram. CM is perpendicular to AB. AB = 10 cm, CM = 6 cm then find[Marks :(3)]

- **1.The area of \Delta ABC?**
- **2.The area of \Delta ADC?**
- 3. The area of parallelogram ABCD?



**Ans.** 1 Area of triangle ABC =  $\frac{1}{2} \times 10 \times 6 = 30$  sq.cm

- 2. Area of triangle ADC =  $\frac{1}{2}$  x10 X 6 = 30 sq.cm
- 3. Area of ABCD = 30 + 30 = 60 sq.cm

## Question.6.



In the figure, ABCD is a rectangle AB = 8 cm, AD = 5 cm, by cutting a right angled triangle ADQ from the rectangle and pasted it at the other end to form a quadrilateral ABPQ

- a. What is the appropriate name of the quadrilateral ABPQ?[Marks :(4)]
- b. What is the area of ABCD?
- c. What is the area of ABPQ?

#### d., If AB = b cm, BC = h cm what will be the area of ABPQ?

Ans. a. parallelogram

- b. Area of ABCD =  $8 \times 5 = 40$  sq.cm
- c. Area of ABPQ = 40 sq.cm
- d. Area of ABPQ = bXh = bh sq.cm

#### Question.7.



In the figure ABCD is a parallelogram BE is perpendicular to AD .The area of  $\triangle$ ABD is 66 cm2 . DE = 2cm, BE = 12cm. Then find[Marks :(5)]

- a) The area of ABCD
- b) The length of AD

#### c) The distance between AB and CD

**Ans.** a) Area of parallelogram ABCD = 66 + 66 = 132 cm<sup>2</sup>

b) AD x 12 = 132 AD = 
$$\frac{132}{12}$$
 = 11

AB2 = 122 + 92 = 144 + 81 = 225 , AB = 15

distance between AB and CD = 
$$\frac{132}{15}$$

Question.8.



In rectangle ABCD, P is the midpoint of AB.[Marks :(5)]

a) If AB = x and AD = y, find the area of the rectangle.

b) Give a suitable name to quadrilateral APQD

c) Find the area of quadrilateral APQD.

# d)What fraction of the area of ABCD is the area of APQD?

Ans. a) xy

b)Trapezium

$$\frac{1}{2}y\left(\frac{1}{2}x + \frac{1}{3}x\right) = \frac{5}{12}xy$$

d) $\frac{5}{12}$