



TOPIC- Theorems on Area

Sub: Mathematics

Class-9

F.M. -15.

Work Sheet -28

Date: 15.5.2020

1. Choose the correct options :

- (i) The perimeter of the parallelogram is 21 cm . The height of the parallelogram with respect to base PS is 4 cm and the height with respect to SR is 3 cm. Then the area of the parallelogram is _____sq cm.
a) 12 b) 18 c) 24 d) 30
- (ii) PQRS is a trapezium where PS || QR. X is the mid point of SR. If triangle XPS + triangle XQR =30 sq cm then the area of the trapezium PQRS will be _____.
a) 15 sq cm b) 30 sq cm c) 45 sq cm d) 60 sq cm.
- (iii) ABCD is a parallelogram . E and F are the mid points of AB and DC. Join the diagonal BD . Ratio of the areas of the quadrilateral BCFE and triangle BCD is :
a) 2:1 b) 3:2 c) 1:1 d) 4:1
- (iv) In triangle PQR, S is the mid point of QR. Also T, M, N are the mid points of SR, RT, and PM. If the area of triangle PQR is 7 sq cm the area of triangle ABC will be :
a) 18 sq cm b) 14sq cm c) 28 sq cm d) 12 sq cm.
- (v) In a parallelogram ABCD, P is any point on side AD. If the area of the parallelogram is 40 sq cm, then the sum of the areas of the triangles ABP and DCP is _____sq cm.
a) 10 b) 20 c) 30 d) 40
- (vi) ABCD is a trapezium whose AD || BC. If triangle ADB=30 sq cm, then triangle ADC will be
a) 30 sq m b) 10 sq m c) 60 sq m d) 15 sq m
- (vii) The base of the a parallelogram and a rectangle is 20 cm and they are situated between the same parallels. If the area of the rectangle is 600 sq cm, then the height of the parallelogram with respect to base is :
a) 15 cm b)30 cm c) 45 cm d) 60 cm.
- (viii) In trapezium ABCD, AD || BC and $AD = \frac{1}{2} BC$. If triangle ABC = 16 sq cm then the area of the trapezium will be _____ sq cm.
a)12 b)16 c)24 d)32
- (ix) In trapezium ABCD, AD || BC. If P is the mid point of DC then area of triangle PBC :area of the trapezium ABCD is :
a)1:1 b)1:2 c)2:1 d) 1:3
- (x) ABCD is a parallelogram. The mid point of AD is P. If the area of the parallelogram is 48 sq units then the area of triangle ACP is _____ sq units.
a) 6 b) 12 c) 24 d)32

- (xi) In a parallelogram PQRS, T is any point on the side QR. If the areas of the triangles PTQ and STR are 14 sq cm and 16 sq cm, then the area of the parallelogram PQRS is :
a)30 sq cm b) 45 sq cm c)60 sq cm d) 120 sq cm.
- (xii) In triangle ABC the mid point of the sides BC, CA and AB are P,Q,R. Then the area of the trapezium ABPQ= ___ of the area of the triangle ABC.
a)1/4 b)1/2 c)3/4 d)3/2
- (xiii) In a parallelogram PQRS , T is the point of intersections of the diagonals PR and QS. If the area of the parallelogram is 50 sq cm, then area of triangles TPQ +TRS = ___sq cm.
a)12 b)25 c)24 d)30
- (xiv) In triangle ABC ,P and Q are the mid points of AB and AC . The length of the perpendicular from A on BC is 7 cm. If PQ =4 cm, then the area of triangle ABC =___ sq cm.
a)7 b)14 c)21 d)28
- (xv) The area of the parallelogram whose base is 16cm and height is 9 cm will be ___ sq cm.
a)72 b)48 c)144 d)98

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