



TOPIC- Theorems on Area

Sub: Mathematics

Class-9

F.M. -15.

Work Sheet -27

Solution

Date: 14.5.2020

1. Choose the correct options :

- (i) The area of the parallelogram ABCD is 32 sq cm . E is the mid point of the side BC. Area of triangle ABE will be ____ sq cm.
d) 8
- (ii) In triangle ABC , P is the mid point of median AD. If the area of triangle ABC is 24 sq cm, then the area of the triangle BPD is :
d) 6 sq cm.
- (iii) ABCD is a parallelogram . E and F are the mid points of AB and DC. Ratio of the areas of the quadrilateral BCFE and triangle BCD is :
c) 1:1
- (iv) In triangle ABC , D is the mid point of the side BC. From the point D ,DE is perpendicular on AB. If $AE=2EB$ and area of triangle ABC is 36 sqcm then area of triangle ADE is :
d) 12 sq cm.
- (v) G is the centroid of triangle ABC and D is the mid point of BC. If the area of triangle GBD is 8 sq cm then area of triangle ABC will be ____ sq cm.
c) 48
- (vi) In a right angled triangle ABC, $\angle B = 90^\circ$ the base BC is 15m, hypotenuse AC =17m. Then the area of the triangle is :
c) 60 sq m
- (vii) ABCD is a parallelogram and F is the mid point of DE. If area of triangle ABD is 28 sqcm then area of triangle AEF is :
b)14 sq cm
- (viii) AD is a median of triangle ABC. If area of triangle ABD is $2a^2$ sqcm and the area of triangle ABC is $2b^2$ sqcm then
c) $b=2a$
- (ix) If the area of a square is equal to the area of such a triangle whose area is 81 sq cm, then the length of each side of the square will be :
b)9 cm
- (x) The point of intersection of the medians of a triangle ABC is G. If the area of the triangle is 60 sq cm then the area of triangle GBC will be ____ sq cm.
b) 20

- (xi) In a triangle ABC, D, E, F are the mid points of the sides BC, CA, and AB. If the area of triangle DEF is 7 sq cm then the area of triangle ABC is _____ sq cm.
d) 28
- (xii) In triangle PQR, O is a point on the side QR such that $2QO=3OR$. Then the ratio of the areas of triangle PQO and triangle POR is :
b) 3:2
- (xiii) In triangle ABC, D and E are such points on AB and AC that triangle DBC = triangle EBC. If BC = 12 cm then DE = _____.
c) 6 cm
- (xiv) Between the same base and same parallels, the area of the triangle will be ____ of the area of the parallelogram.
b) half
- (xv) The median of a triangle divides the triangle into _____ triangles of equal area.
a) two

Debjani Das