



ST. LAWRENCE HIGH SCHOOL



TOPIC – Theorems on Area

Subject : Mathematics

Class-9 Second term F. M. 15

WORKSHEET NO. - 4

Solutions

Date: 03.07.21

Q.1) Choose the correct option:

(1x15=15)

- i) D, E and F are midpoint of sides BC, CA and AB respectively of a ΔABC . If $\Delta ABC = 16$ sq. cm, then the area of the shape of trapezium FBCE is
c) 12 sq. cm
- ii) A, B, C, D are the midpoints of sides PQ, QR, RS and SP respectively of a parallelogram PQRS. If area of the shape of parallelogram PQRS = 36 sq. cm, then area of ABCD field is
b) 18 sq. cm
- iii) O is any point inside parallelogram ABCD. If $\Delta AOB + \Delta COD = 16$ sq. cm, then area of the shape of the parallelogram ABCD is
c) 32 sq. cm
- iv) D is the midpoint of side BC of ΔABC . E is the midpoint of side BD and O is the midpoint of AE, area of triangular field BOE is
d) $\frac{1}{8}$ x Area of ΔABC
- v) A parallelogram, a rectangle and a triangle stand on same base and between same parallel and if their area are P, Q and T respectively,
a) $P = R = 2T$
- vi) ABDE is a parallelogram and F is the midpoint of DE. If area of ΔABD is 28 sq. cm then area of ΔAEF is
c) 14 sq. cm
- vii) ABCD is a parallelogram. E and F are respectively the midpoints of AB and DC. Join the diagonal BD. Ratio of areas of the quadrilateral BCFE and ΔBCD is
c) 1 : 1
- viii) In ΔABC , P is the midpoint of the median AD. If the area of ΔABC is 24 sq. cm, then the area of ΔBPD is
d) 6 sq. cm
- ix) In ΔABC , D is the midpoint of side BC. From the point D, DE is perpendicular on AB. If $AE = 2 EB$ and area of ΔABC is 36 sq. cm then area of ΔADE is
c) 12 sq. cm
- x) G is the centroid of ΔABC and D is the midpoint of the side BC. If the area of ΔGBD is 8 sq. cm, then the area of ΔABC will be
c) 48 sq. cm
- xi) In the right angled ΔABC , $\angle B = 90^\circ$, and if the base $BC = 15$ mtrs, hypotenuse $AC = 17$ mtrs, then area of the triangle is
a) 60 sq. m
- xii) AD is a median of ΔABC . If the area of ΔABD is "a" sq. cm and the area of ΔABC is "b" sq. cm then
c) $b = 2a$
- xiii) If the area of a square is equal to area of such a triangle whose area is 81 sq. cm, then the length of each side of the square is
b) 9 cm
- xiv) The point of intersection of the medians of a ΔABC is G. If the area of the triangle is 60 sq. cm, then the area of ΔGBC will be
c) 20 sq. cm
- xv) The perimeter of a parallelogram is 21 cm. The height of the parallelogram with respect to the base PS is 4 cm, and the height with respect to SR is 3 cm. Then the area of the parallelogram is
b) 18 sq. cm

-ChaitaliRoy