



ST. LAWRENCE HIGH SCHOOL



TOPIC- Mid point theorem

CLASS:9

Sub: Mathematics

F. M. 15

WORK SHEET NO. -22

Solution

Date: 1.5.2020

Q.1) Choose the correct options: 1x15=15

- i) In equilateral triangle ABC the mid points of AB and AC are D and E respectively. If $AB = 10\text{cm}$ then $DE =$
- a) 5cm
- ii) In triangle ABC, BE and CD are two medians. If $DE = 8\text{cm}$ then $BC =$
- d) 16cm
- iii) In triangle ABC, mid points of AB and AC are X and Y. If $BC + XY = 12\text{units}$ then $BC - XY =$
- a) 4 units
- iv) ABC is equilateral triangle. D, E, F are the mid points of AB, AC, BC then triangle DEF is
- a) equilateral
- v) In triangle ABC, AB is bisected at D and CD is bisected at E. If extended AE intersect BC at F then $FC =$
- c) $\frac{1}{3} BC$
- vi) D and E are the mid points of AB and BC of triangle ABC. DA is extended upto P so that $DA = AP$. If PE intersect AC at F then $AF =$
- c) $\frac{1}{4} AC$
- vii) P, Q, R, S are the mid points of the sides of the rectangle ABCD. Then PQRS is a
- c) rhombus
- viii) P is the mid point of AD of parallelogram ABCD. If BP and AC intersect at Q then $AC =$
- c) $3AQ$
- ix) In triangle ABC, D and E are the mid points of AB and AC. P and Q are mid points of AD and AE. If $BC = 10\text{cm}$, then $PQ =$
- b) 2.5cm
- x) ABCD is a square. The diagonals AC and BD meet at O. The bisector of $\angle BAC$ meet BO at P and BC at. Then $OP =$
- d) $\frac{1}{2} CQ$
- xi) The length of the diagonals of a parallelogram are 12cm and 8cm . The perimeter of the quadrilateral obtained by joining the mid points of the sides of the Parallelogram is
- c) 20cm
- xii) In triangle ABC, D, E, F, are the mid points of BC, CA and AB. If BE and DF intersect at P and CF and DE intersect at Q then PQ is equal to
- b) $\frac{1}{4} BC$
- xiii) In triangle ABC, O is the mid point of median AD. Extended BO intersect AC at X. Y is the mid point of CX, if $AC = 12.6\text{cm}$ then $XY =$
- d) 4.2cm
- xiv) In triangle ABC, D is the mid point of BC. BE is perpendicular on the external bisector of $\angle BAC$. Then $DE =$
- a) $\frac{1}{2} (AB + AC)$
- xv) In triangle ABC, $\angle A$ is a right angle and D is the mid point of hypotenuse BC. Then $AD =$
- c) $\frac{1}{2} BC$

