# ST. LAWRENCE HIGH SCHOOL <br> TOPIC- Mid point theorem 

Sub: Mathematics

Class: 9
F. M. 15

WORK SHEET NO. -23
Date: 2.5.2020
Q.1) Choose the correct options: $1 \times 15=15$
i) In the Parallelogram $A B C D, P$ and $Q$ are mid points of $A D$ and $B C$. Then $A Q$ and $C P$ $\qquad$ BD.
a)bisect
b)trisect
c) none of the above
ii) $C$ is the mid point of line $A B$. $X Y$ is any straight line. From $A, B, C$ the perpendiculars $A P, B Q$ and $C R$ are drawn on $X Y$. Then $A P+B Q=$
a)CR
b) 2 CR
c) 3 CR
d) 4 CR
iii) The quadrilateral formed by joining the mid points of the sides of the square form a $\qquad$ -.
a) square
b) rectangle
c) parallelogram
d) rhombus.
iv) The quadrilateral formed by joining the mid points of the sides of rhombus is a $\qquad$ .
a) square
b) rectangle
c) parallelogram
d)rhombus.
v) In triangle $A B C$, the mid points of $B C$ is $O$ and $B P$ and $C P$ are perpendicular on a straight line through A. Then OP $\qquad$ OQ.
a) equal
b) greater
c) less
vi) In triangle $A B C, A D$ is the perpendicular upon the bisector of $\angle A B C$. The line $D E$ through $D$ parallel to $B C$ is drawn which meets $A C$ at $E$. Then $A E$ $\qquad$ EC.
a)equal
b) greater
c) less
vii) In triangle $A B C, P$ is the mid point of $B C$. Through $P$, the lines parallel to $A C$ and $A B$ are drawn which meet $A B$ and $A C$ at $Q$ and $R$. Then $Q R$ $\qquad$ to $B C$.
a)parallel b)perpendicular c)equal
viii) In triangle $A B C, E$ is the mid point of median $A D$. Extended $B E$ intersect $A C$ at $F$. Then $A F$ is equal to
a) $A C$
b) $1 / 2 \mathrm{AC}$
c) $1 / 3 \mathrm{AC}$
d) 3 AC
ix) In triangle $A B C, D, E$, and $F$ are the mid point of sides $A B, A C$ and $B C$. Then $D E$ and $E F$ will $\qquad$ each other.
a) bisect
b) trisect
c) none of the above
x) The line segment joining the mid points of two oblique sides of a trapezium is $\qquad$ to the parallel sides.
a)parallel
b) perpendicular
c) equal
xi) $A D$ is a median of triangle $A B C$. $O$ is the mid point of $A D$. Extended $B O$ intersect $A C$ at point $E$. Then $B O=$ $\qquad$ -.
a) OE
b) 20 E
c) 30 E
d) 40 E
xii) In equilateral triangle $A B C$, mid point of $B C, C A$, and $A B$ are $D, E$, and $F$. Then AEDF is
a)rhombus
b)square c)trapezium
d) parallelogram
xiii) $P$ and $Q$ are the mid points of $A B$ and $A C$ of triangle $A B C$. The median $A D$ intersect the line segment $P Q$ at $O$. If $B C=12 \mathrm{~cm}$ then $O P=$
a) 2 cm
$\begin{array}{lll}\text { b) } 3 \mathrm{~cm} & \text { c) } 4 \mathrm{~cm} \quad \text { d) } 6 \mathrm{~cm}\end{array}$
xiv) If the two medians of a triangle are equal then the triangle is
a)isosceles
b)equilateral
c) right angled
d) scalene
$x v$ ) In triangle $A B C, A C=8 \mathrm{~cm}$ and $B C=6 \mathrm{~cm}$. From the mid point $D$ of $A B, D E$ is drawn II $B C$ which intersect $A C$ at $E$ then $D E=$
a) 2 cm
b) 3 cm
c) 4 cm
d) 5 cm .

