TOPIC- Mid point theorem

Sub: Mathematics   **Class: 9**   **F. M. 15**

WORK SHEET NO. -20   **Date: 29.4.2020**

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

i)   The join of mid point of any two sides of the triangle is parallel to the third side and is_____ of it.
  a)1/2   b)1/4   c)1/3   d)none

ii)   BE and CD are two medians of triangle ABC. If the length of BC =11cm then DE =
  a)2 m   b) 4cm   c)5cm   d) 10cm

iii)   In triangle PQR, S is the mid point PQ. The line through S parallel to QR meets PR at T. If PT =3.5cm then the length of PR will be_____.
  a) 4cm   b) 6cm   c) 7cm   d) 10cm

iv)   PQR is an equilateral triangle. On PQ and PR two points S and T are such that ST parallel to QR. If ST =5cm then PS=
  a) 10 cm   b) 20cm   c) 12cm   d)5cm

v)   In triangle PQR, S and T are the mid points of PQ and PR. If QR +ST =12units then   QR - ST will be_____ units.
  a) 4   b) 8   c) 15   d) 20

vi) In triangle PQR, D, E, F are the mid points of PQ, QR, and RP. Also EF =4cm, DF =4.5cm. If the perimeter of triangle is 27cm, then DE =_____
  a)4cm   b) 5cm   c) 6cm   d) 8cm

vii) In triangle ABC, P is the mid point of BC. Through P, the lines parallel to AC and AB are drawn which meet AB and AC at Q and R. Then QR_____ to BC.
  a)parallel   b)perpendicular   c)equal

viii) In triangle ABC, D, E and F are the mid points of the sides BC, CA, and AB. If the perimeter of the triangle ABC is 18cm then the perimeter of triangle DEF is
  a)4.5cm   b)8cm   c)9cm   d)10cm

ix) In triangle ABC, D, E, and F are the mid point of sides BC, CA and AB. If EF intersect AD at the point O and AD =8cm then AO =
  a) 3cm   b) 6cm   c) 4cm   d) 7cm

x) AD and BE are two medians of the triangle ABC. The straight line through D parallel to BE intersect EC at F. If AC =8cm then EF =
  a)4cm   b)2cm   c) 1cm   d) 2.5cm

xi) BE and CD are two medians of triangle ABC. If P and Q are the mid point of AD and AE then PQ is equal to
  a)BC   b)1/2BC   c)1/3 BC   d)1/4 BC

xii) In equilateral triangle ABC, mid point of BC, CA, and AB are D, E, and F. Then AEDF is
  a)rhombus   b)square   c)trapezium   d) parallelogram

xiii) In triangle ABC, D and E are the mid point of the sides AB and AC. If DE =8cm, BC =
  a)16cm   b)8cm   c)4cm   d)2cm

xiv) If the two medians of a triangle are equal then the triangle is
  a)isosceles   b)equilateral   c)right angled   d)scalene

xv) In triangle PQR, PQ =10cm and PR =15cm.The mid point of PS is T. QT produced meets PR at X. Then PX =
  a)2cm   b)2.5cm   c)4cm   d)5cm.

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