

Name : _____

Score : _____ Date : _____

Medians and Altitudes of a Triangle Worksheet

Fill in the blanks to complete each definition.

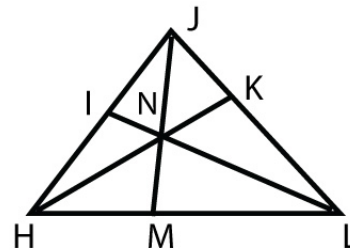
1 A median of a triangle is a segment whose endpoints are a vertex of the triangle and the _____ of the opposite side.

2 An altitude of a triangle is a _____ segment from a vertex to the line containing the opposite side.

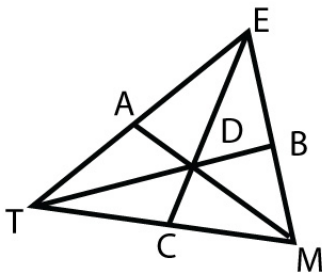
3 Given, I, K and M are midpoints of the sides of ΔHJL

(a) If $JM=18$, Find JN and NM

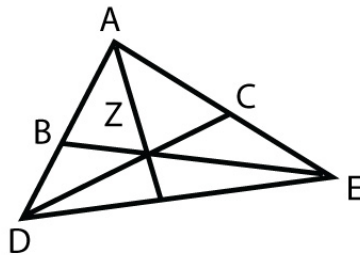
(b) If $HN=14$, Find NK and HK



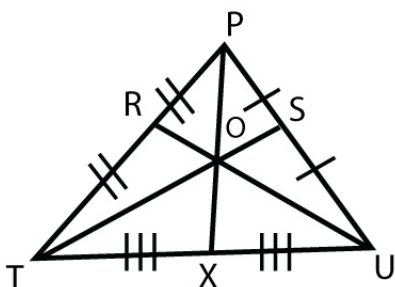
4 In the given diagram of ΔTEM , medians \overline{TB} , \overline{EC} , and \overline{MA} intersect at D, and $TB=9$. Find the length of \overline{TD} .



5 Given the point Z is the centroid of ΔADE and $DZ=20$. What is the length of segment ZC ?



6 Given that \overline{PX} , \overline{RU} and \overline{ST} are medians of ΔPTU



Given $TS = 21$ and $OX = 5$

Find, $TO =$ _____

$SO =$ _____

$XP =$ _____

$OP =$ _____

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Medians and Altitudes of a Triangle Worksheet

Answers

1 A median of a triangle is a segment whose endpoints are a vertex of the triangle and the midpoint of the opposite side.

2 An altitude of a triangle is a perpendicular segment from a vertex to the line containing the opposite side.

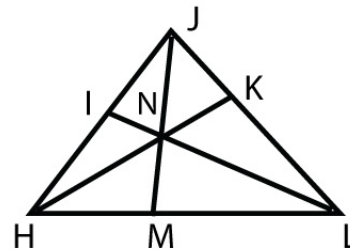
3 Given, I, K and M are midpoints of the sides of ΔHJL

(a) If $JM=18$, Find JN and NM

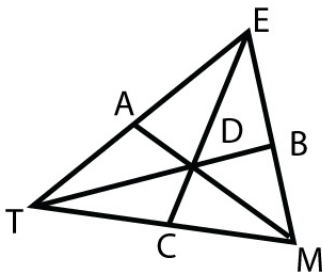
$JN = 12, NM = 6$

(b) If $HN=14$, Find NK and HK

$NK = 7, HK = 21$

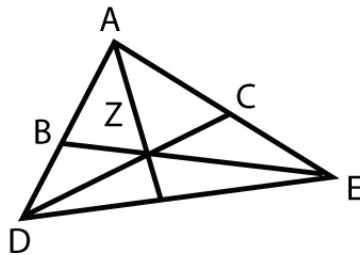


4 In the given diagram of ΔTEM , medians \overline{TB} , \overline{EC} , and \overline{MA} intersect at D, and $TB=9$. Find the length of \overline{TD} .



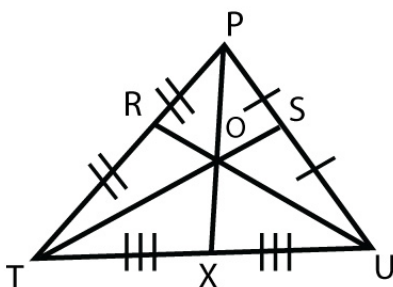
_____ 6 _____

5 Given the point Z is the centroid of ΔADE and $DZ=20$. What is the length of segment ZC ?



_____ 10 _____

6 Given that \overline{PX} , \overline{RU} and \overline{ST} are medians of ΔPTU



Given $TS = 21$ and $OX = 5$

Find, $TO =$ 14

$SO =$ 7

$XP =$ 15

$OP =$ 10