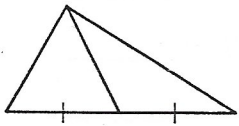
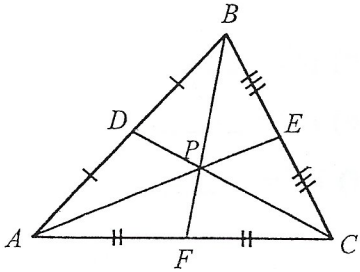


NAME: \_\_\_\_\_

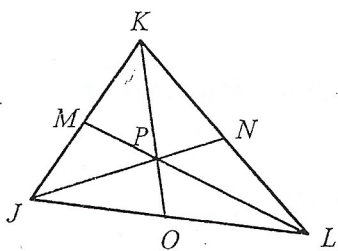
PERIOD: \_\_\_\_\_

# MEDIANS & CENTROID

<p><b>Median</b></p>	 <p>A segment joining a _____ to the _____ of the opposite side.</p>
<p><b>Centroid</b></p> 	<ul style="list-style-type: none"> <li>The three _____ of a triangle intersect at a point called the <b>centroid</b>.</li> </ul> <p>Use the diagram to the left to answer the following questions:</p> <ol style="list-style-type: none"> <li>List the medians: _____</li> <li>Name the centroid: _____</li> <li>What special properties exist for each median? _____ _____</li> </ol>

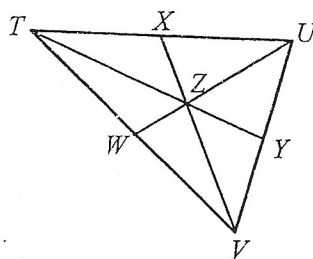
## Practice!

1. If  $P$  is the centroid of  $\triangle JKL$ ,  $JK = 22$ ,  $KN = 13$ , and  $OL = 18$ , find each missing measure.



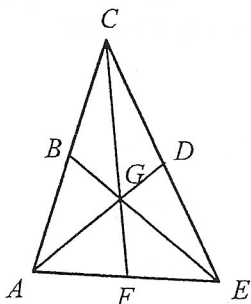
- $KM =$  \_\_\_\_\_
- $NL =$  \_\_\_\_\_
- $KL =$  \_\_\_\_\_
- $JO =$  \_\_\_\_\_
- $JL =$  \_\_\_\_\_

2. If  $Z$  is the centroid of  $\triangle TUV$ ,  $TZ = 60$ ,  $XZ = 28$ , and  $WZ = 25$ , find each missing measure.



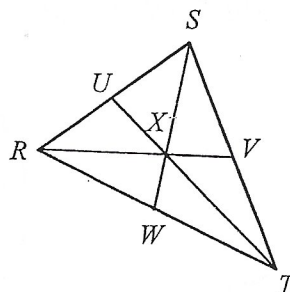
- $ZV =$  \_\_\_\_\_
- $ZY =$  \_\_\_\_\_
- $ZU =$  \_\_\_\_\_
- $TY =$  \_\_\_\_\_
- $XV =$  \_\_\_\_\_

3. If  $G$  is the centroid of  $\triangle ACE$ ,  $AG = 8$ ,  $GF = 7$ , and  $BG = 5$ , find each missing measure.



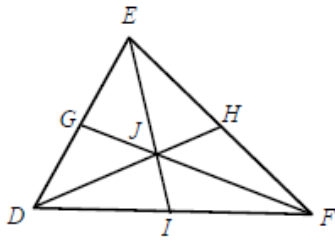
- $GD =$  \_\_\_\_\_
- $AD =$  \_\_\_\_\_
- $CG =$  \_\_\_\_\_
- $GE =$  \_\_\_\_\_
- $BE =$  \_\_\_\_\_

4. If  $X$  is the centroid of  $\triangle RST$ ,  $TU = 27$ ,  $SW = 18$ , and  $RV = 21$ , find each missing measure.



- $TX =$  \_\_\_\_\_
- $XU =$  \_\_\_\_\_
- $SX =$  \_\_\_\_\_
- $XW =$  \_\_\_\_\_
- $RX =$  \_\_\_\_\_

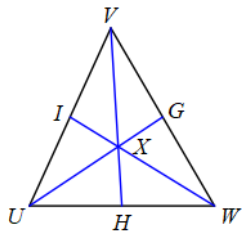
5. If  $J$  is the centroid of  $\triangle DEF$ ,  $DH = 51$ ,  $GF = 60$ , and  $EI = 57$ , find each missing measure.



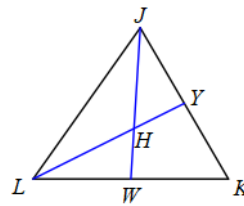
- a)  $DJ =$  \_\_\_\_\_      d)  $JF =$  \_\_\_\_\_  
 b)  $JH =$  \_\_\_\_\_      e)  $EJ =$  \_\_\_\_\_  
 c)  $GJ =$  \_\_\_\_\_      f)  $JI =$  \_\_\_\_\_

**Algebra applications - Each figure shows a triangle with one or more of its medians.**

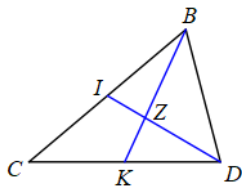
6) Find  $x$  if  $UX = x - 2$  and  $XG = x - 3$



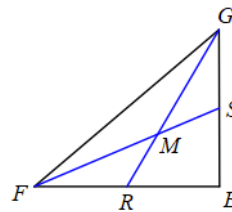
7) Find  $x$  if  $JH = 4x - 3$  and  $HW = x + 1$



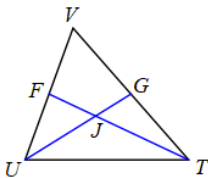
8) Find  $x$  if  $DZ = 8x$  and  $ZI = 3x + 2$



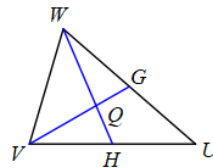
9) Find  $x$  if  $FM = 2x - 6$  and  $MS = -7 + 2x$



10) Find  $x$  if  $TF = 2x - 7$  and  $JF = -5 + x$

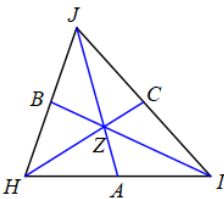


11) Find  $x$  if  $VQ = x + 8$  and  $VG = 3x$



**Each figure shows a triangle with one or more of its medians.**

12) Find  $HZ$  if  $HZ = x - 3$  and  $ZC = x - 7$



13) Find  $DU$  if  $DQ = -3 + 3x$  and  $QU = x$

