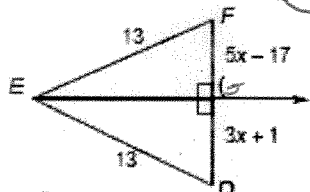


GEOMETRY 5-1 & 5-2 PRACTICE

Name Master E
Date _____ Block _____

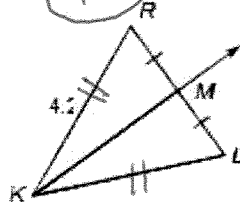
Find the indicated measure.

1. $FG = 5(9) - 17 = 28$

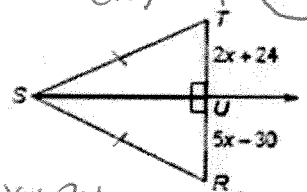


$5x - 17 = 3x + 1$
 $2x = 18$
 $x = 9$

2. $KL = 4.2$

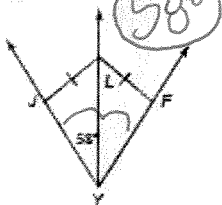


3. $TU = 2(18) + 24 = 60$

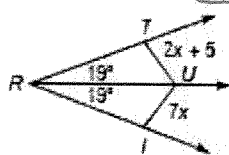


$2x + 24 = 5x - 30$
 $54 = 3x$
 $18 = x$

4. $\angle LYF = 58^\circ$

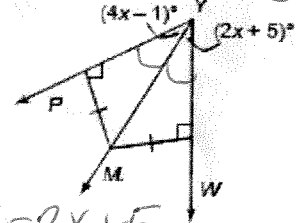


5. $IU = 7(1) = 7$



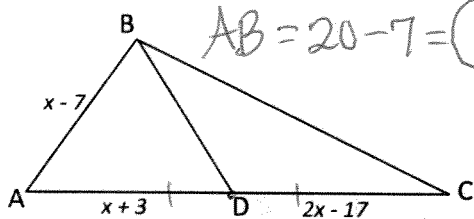
$2x + 5 = 7x$
 $5 = 5x$
 $1 = x$

6. $\angle MYW = 2(3) + 5 = 11$



$4x - 1 = 2x + 5$
 $2x = 6$
 $x = 3$

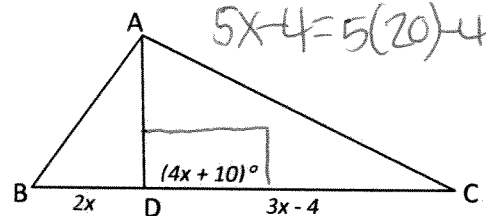
7. Find AB if BD is a median of $\triangle ABC$.



$AB = 20 - 7 = 13$

$x + 3 = 2x - 17$
 $20 = x$

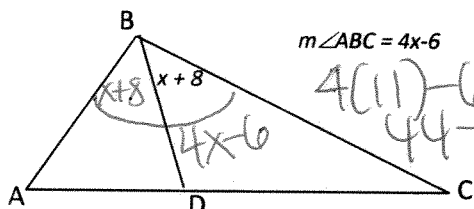
8. Find BC if AD is an altitude of $\triangle ABC$.



$BC = 5x - 4 = 5(20) - 4 = 96$

$4x + 10 = 90$
 $4x = 80$
 $x = 20$

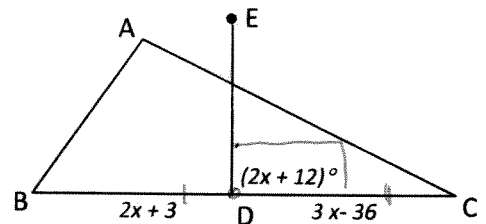
9. Find $m\angle ABC$ if BD is an angle bisector of $\triangle ABC$.



$m\angle ABC = 4x - 6$
 $4(11) - 6 = 38$

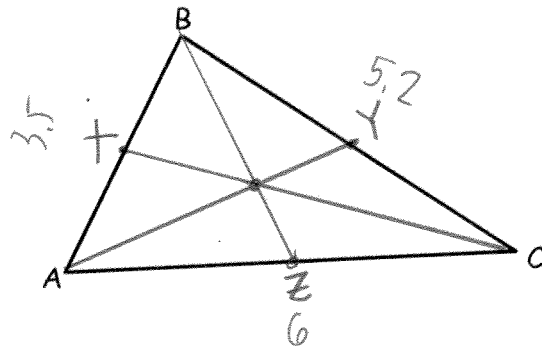
$2x + 16 = 4x - 6$
 $16 = 2x - 6$
 $22 = 2x$
 $11 = x$

10. Find x and BC if DE is a \perp bisector.



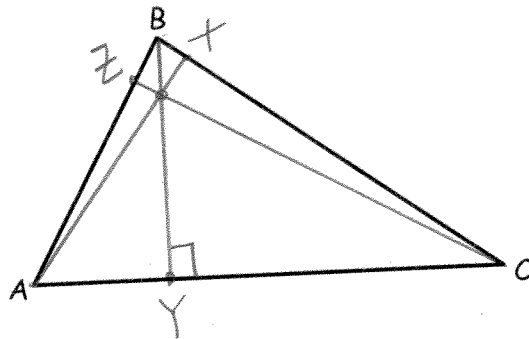
$2x + 12 = 90$
 $2x = 78$
 $x = 39$
 $BC = 5x - 33 = 5(39) - 33 = 162$

11. Draw the three medians of your triangle. Measure \overline{AB} , \overline{BC} , and \overline{AC} and mark the midpoints X, Y, and Z, in that order and draw the medians to those points. What observations can you make?



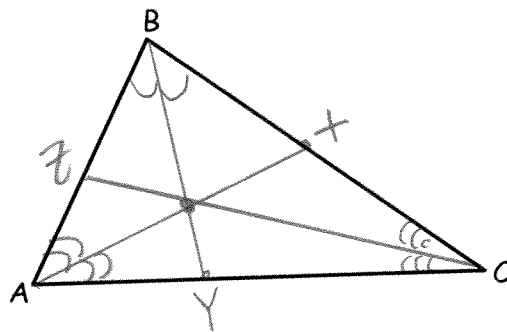
They meet inside the Δ
(Centroid)

12. Draw the three altitudes of your triangle. Label them \overline{AX} , \overline{BY} , and \overline{CZ} . What observations can you make?



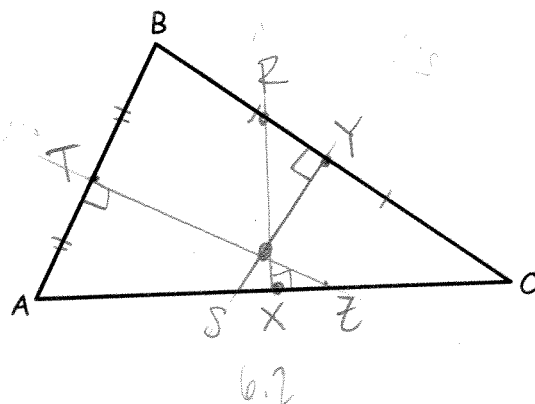
They meet inside the Δ
(Orthocenter)

13. Draw the three angle bisectors of your triangle. Label them \overline{AX} , \overline{BY} , and \overline{CZ} . What observations can you make?



They meet inside the Δ
(Incenter)

14. Draw the three perpendicular bisectors of the sides of your triangle. Label them \overline{RX} , \overline{SY} , and \overline{TZ} . What observations can you make?



They meet inside the Δ
(Circumcenter)