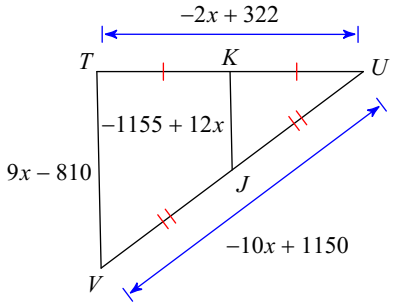
Ms. Mougharbel Name_____

Geometry - Homework 20

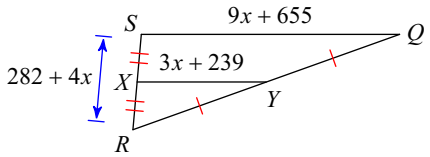
Date_____ Period____

Find the missing length indicated.

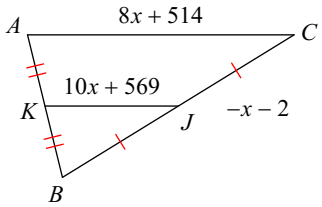
1) Find *KJ*



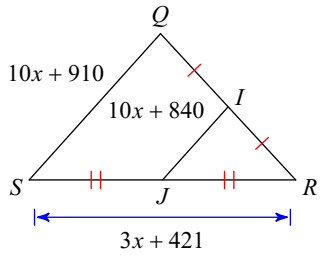
2) Find *QS*



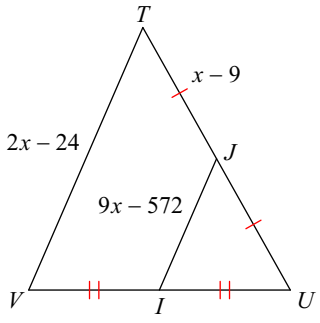
3) Find *JK*



4) Find *IJ*

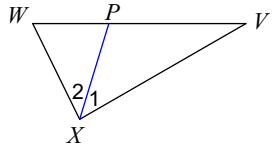


5) Find *JI*

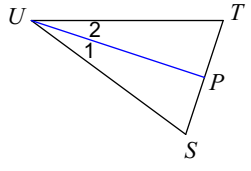


Each figure shows a triangle with one of its angle bisectors.

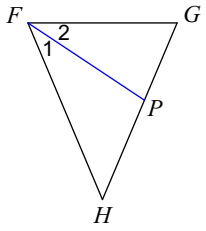
6) Find x if $m\angle 2 = 3x + 13$ and $m\angle 1 = 4x + 3$.



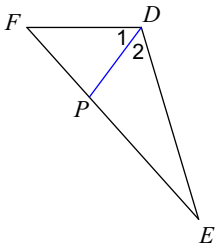
7) Find x if $m\angle 1 = 3x - 3$ and $m\angle 2 = x + 11$.



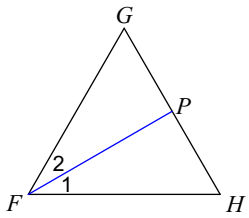
8) Find x if $m\angle 1 = 5x - 2$ and $m\angle HFG = 8x + 10$.



9) Find x if $m\angle 2 = 25x + 3$ and $m\angle 1 = 26x + 1$.

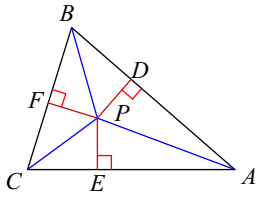


10) Find x if $m\angle 2 = 4x + 6$ and $m\angle 1 = 6x - 6$.

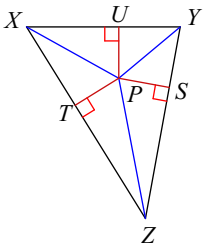


Each figure shows a triangle with its three angle bisectors intersecting at point P.

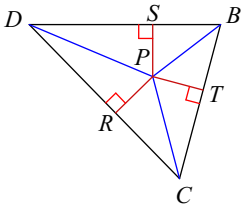
11) Find PE if $CE = 6$ and $CP = 7$.



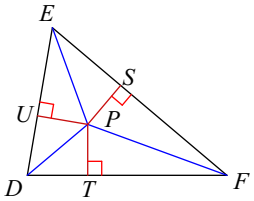
12) $PT = 3$ and $XT = 5$. Find XP.



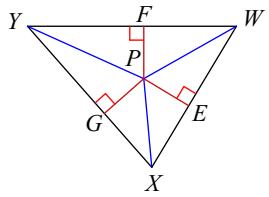
13) Find BS if $PS = 1$ and $BP = 2.24$.



14) $PU = 3$ and $DP = 5$. Find DT.

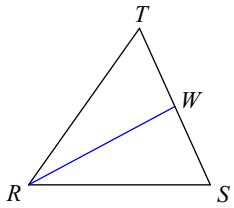


15) Find WP if $PE = 3$ and $WF = 4$.

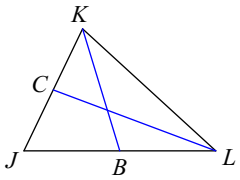


Each figure shows a triangle with one or more of its medians.

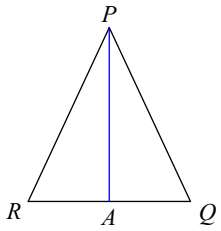
16) Find WS if $WT = 1.5$



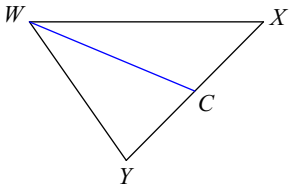
17) Find KJ if $CJ = 7.6$



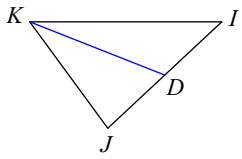
18) Find RQ if $AQ = 2.15$



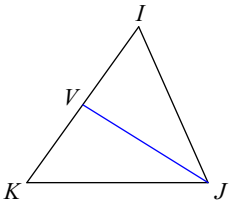
19) Find CX if $YX = 1.1$



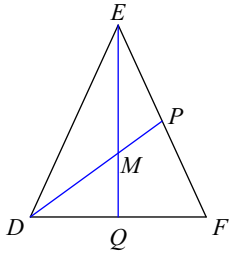
20) Find DJ if $DI = 2$



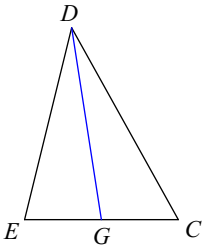
21) Find x if $VK = 2x - 1$ and $VI = x + 2$



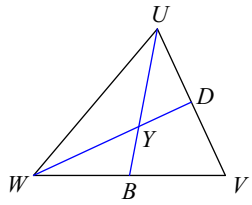
22) Find x if $EM = 2x - 6$ and $MQ = 2x - 9$



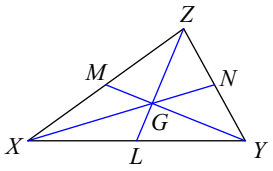
23) Find x if $GC = \frac{1}{2}x$ and $GE = x - \frac{11}{2}$



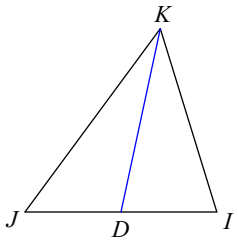
24) Find x if $UB = 2x + 2$ and $YB = 2x - 2$



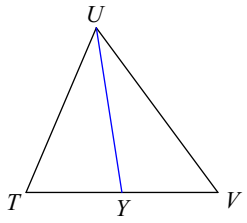
25) Find x if $ZG = x - 1$ and $GL = 2x - 8$



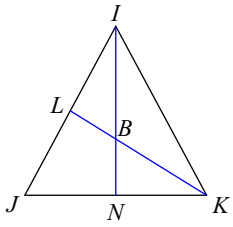
26) Find DJ if $JI = 2x - 3$ and $DI = \frac{3x - 9}{2}$



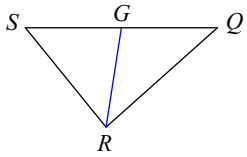
27) Find YT if $YV = 3x - 12$ and $YT = x - 2$



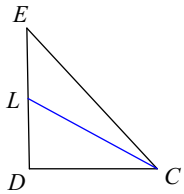
28) Find BN if $IB = 5x - 5$ and $BN = 3x - 5$



29) Find QS if $QS = x - 8$ and $GS = x - 9$

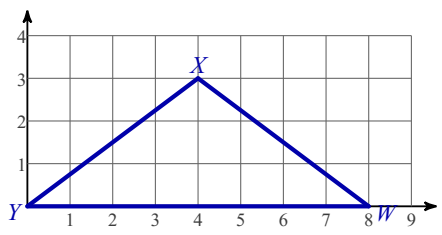


30) Find ED if $LD = 3x - 6$ and $LE = 2x - 3$

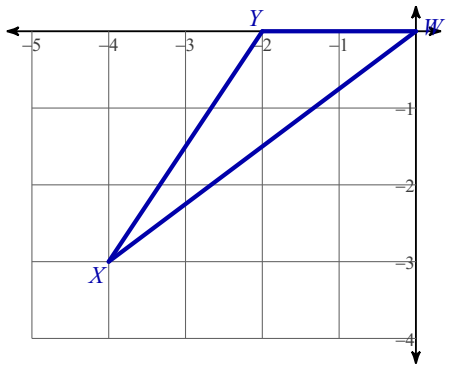


Find coordinates of the centroid of each triangle.

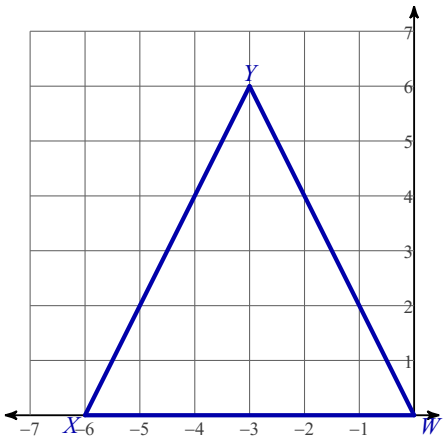
31)



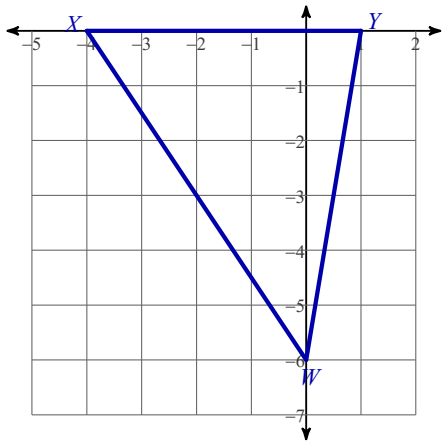
32)



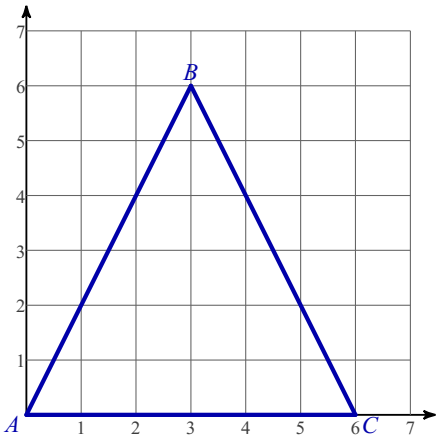
33)



34)



35)



Find the coordinates of the centroid of each triangle given the three vertices.

36) D(–5, –7), E(–8, 1), F(4, 1)

37) B(7, 5), C(–6, 5), D(–5, 0)

38) U(–5, 7), T(–2, 7), S(–1, –8)

39) D(–8, –2), E(3, –2), F(–3, 6)

40) J(–6, –1), I(7, –1), H(6, 7)

Answers to Geometry - Homework 20

1) 45
3) 49
5) 58
7) 7
9) 2
11) 3.61
13) 2
15) 5
17) 15.2
19) 0.55
21) 3
23) 11
25) 5
27) 3
29) 2
31) $(4, 1)$
33) $(-3, 2)$
35) $(3, 2)$
37) $\left(-\frac{4}{3}, \frac{10}{3}\right)$
39) $\left(-\frac{8}{3}, \frac{2}{3}\right)$