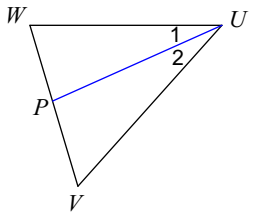
Geometry Name_____

Special Segments and Points of Concurrency

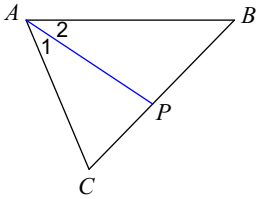
Date_____ Period____

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

1) Find $m\angle 1$ if $m\angle 2 = 8x$ and $m\angle WUV = 17x - 3$.

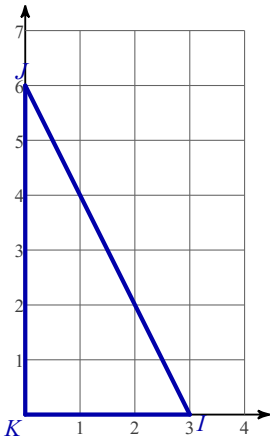


2) $m\angle 1 = 2x + 15$ and $m\angle CAB = 6x + 12$. Find $m\angle CAB$.

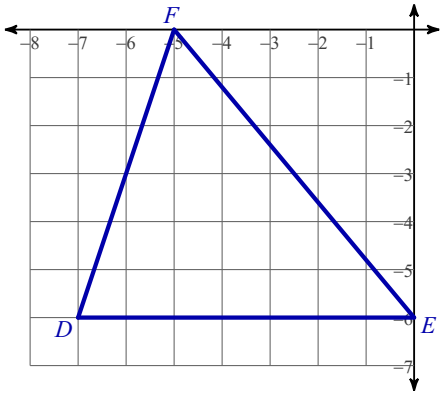


Find coordinates of the centroid of each triangle.

3)

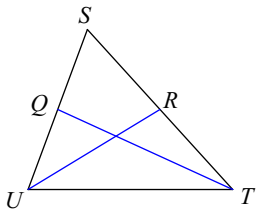


4)

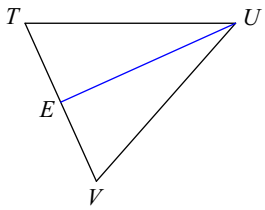


Each figure shows a triangle with one or more of its medians.

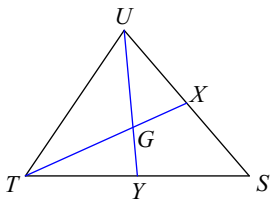
5) Find QU if $SU = 10$



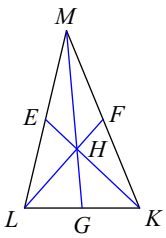
6) Find TV if $EV = 2.9$



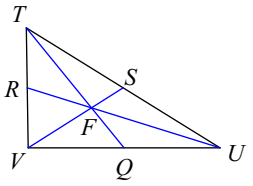
7) Find GY if $UY = 8.55$



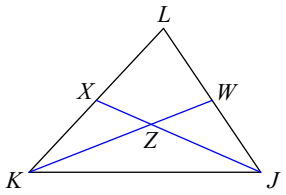
8) Find KH if $KE = 24$



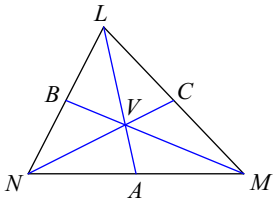
9) Find UF if $FR = 12$



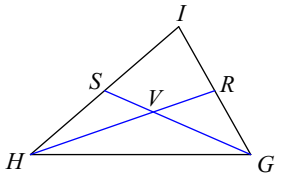
10) Find ZX if $JX = 9$



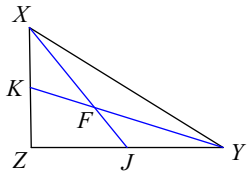
11) Find VA if $LV = 24$



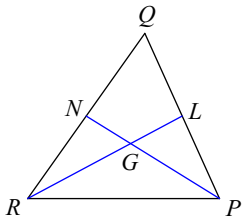
12) Find GV if $GS = 15$



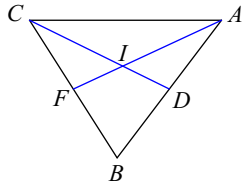
13) Find YF if $YF = x + 2$ and $FK = 2x - 2$



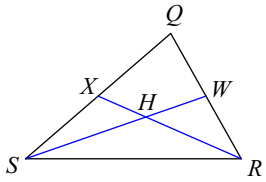
14) Find RL if $RL = 8x + 2$ and $GL = 4x - 2$



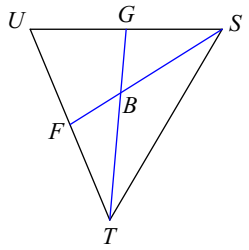
15) Find IF if $AI = x - 1$ and $IF = \dfrac{2x - 3}{2}$



16) Find SH if $SW = 4x + 6$ and $HW = 2x - 2$



17) Find BF if $SB = x - 5$ and $BF = 2x - 10$



18) Find GS if $XG = x$ and $XS = 2x - 3$