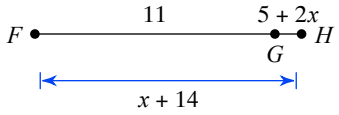
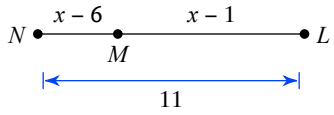
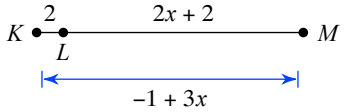
2-2 Angle/Segment Addition Postulate and Angle Bisectors

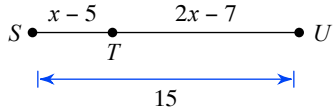
Date_____

Solve for *x*. Then find the measure of each segment.

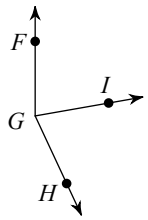
1) 

2) 

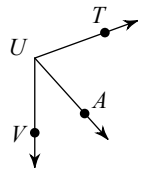
3) 

4) 

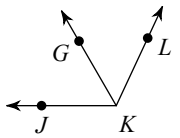
5) $m\angle FGI = 80°$ and $m\angle IGH = 75°$.
Find $m\angle FGH$.



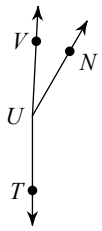
6) $m\angle AUV = 42°$ and $m\angle TUV = 110°$.
Find $m\angle TUA$.



7) Find $m\angle GKL$ if $m\angle JKL = 115°$ and $m\angle JKG = 60°$.

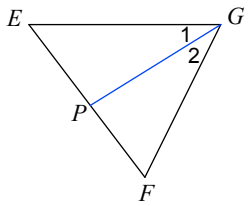


8) Find $m\angle NUT$ if $m\angle VUN = 27°$ and $m\angle VUT = 177°$.

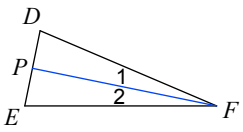


Each figure shows a triangle with one of its angle bisectors.

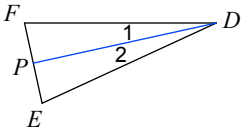
9) $m\angle 2 = 8x$ and $m\angle EGF = -4 + 17x$. Find x.



10) $m\angle 2 = 3 + 2x$ and $m\angle 1 = x + 7$. Find x.



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



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