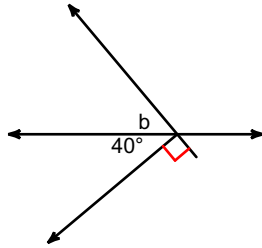


# Angle Relationships: The Basics

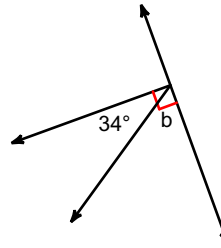
**Directions: For all problems, you need to show all work and justify your set up. If Geometry is given, you will need to show the geometrical SET UP to the question.**

**Find the measure of angle b.**

1)

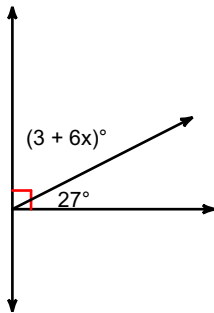


2)

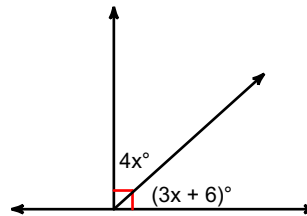


**Find the value of x.**

3)

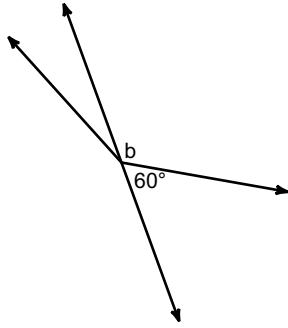


4)



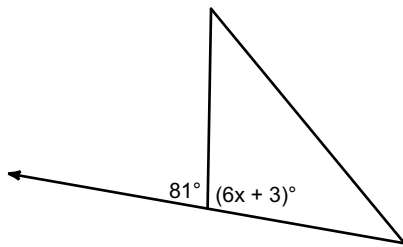
Find the measure of angle b.

5)

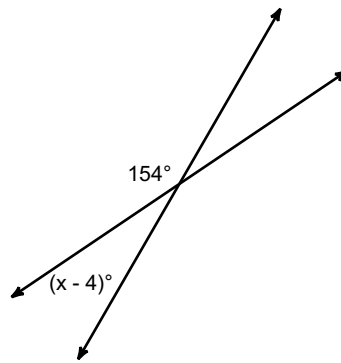


Find the value of x.

6)

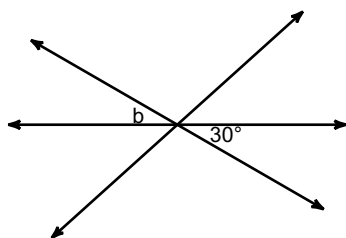


7)



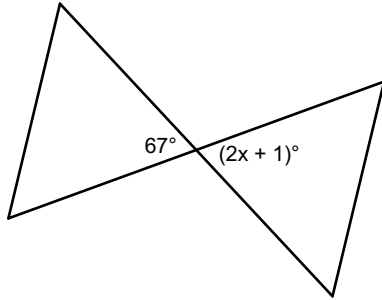
Find the measure of angle b.

8)

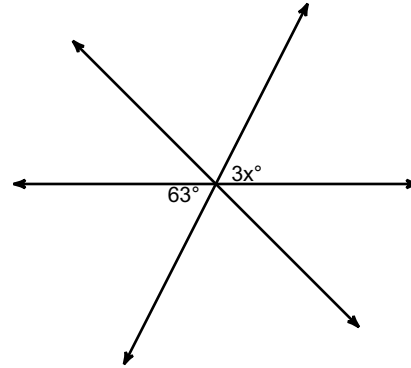


Find the value of  $x$ .

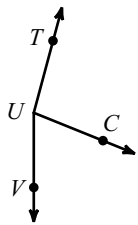
9)



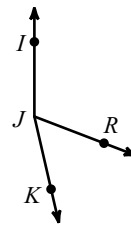
10)



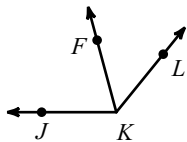
11) Find  $m\angle CUV$  if  $m\angle TUV = 165^\circ$  and  $m\angle TUC = 97^\circ$ .



12)  $m\angle RJK = 4x + 8$ ,  $m\angle IJK = 14x - 1$ , and  $m\angle IJR = 111^\circ$ . Find  $x$ .

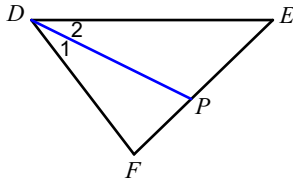


13) Find  $m\angle FKL$  if  $m\angle JKL = 129^\circ$ ,  $m\angle JFK = x + 79$ , and  $m\angle FKL = 58 + x$ .

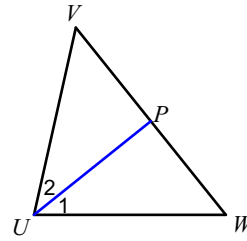


Each figure shows a triangle with one of its angle bisectors. Show all work, your Geometry and justify your SET UP!

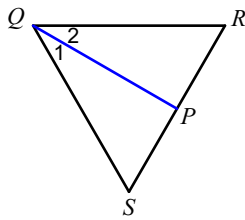
14) Find  $m\angle 1$  if  $m\angle 2 = 26^\circ$ .



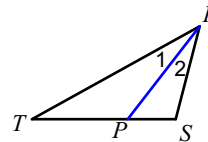
15) Find  $m\angle 1$  if  $m\angle 2 = 38^\circ$ .



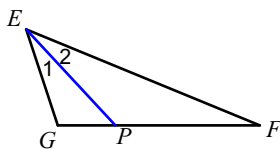
16) Find  $m\angle 1$  if  $m\angle SQR = 60^\circ$ .



17)  $m\angle 1 = 5x - 2$  and  $m\angle TRS = 8x + 6$ .  
Find  $x$ .



18) Find  $x$  if  $m\angle 1 = 7x - 4$  and  $m\angle GEF = 11x + 4$ .



19)  $m\angle 1 = 8x - 3$  and  $m\angle DBC = 14x + 6$ .  
Find  $m\angle 2$ .

