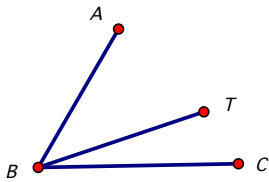
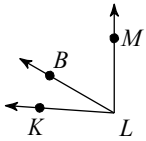


# The Angle Addition Postulate

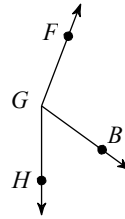


$$\angle ABC = \angle ABT + \angle TBC$$

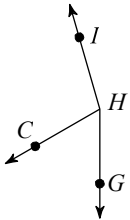
- 1) Find  $m\angle KLM$  if  $m\angle KLB = 26^\circ$   
and  $m\angle BLM = 60^\circ$ .



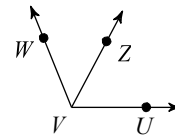
- 2) Find  $m\angle FGH$  if  $m\angle FGB = 105^\circ$   
and  $m\angle BGH = 54^\circ$ .



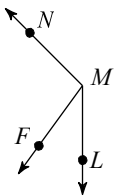
- 3)  $m\angle GHC = 60^\circ$  and  $m\angle CHI = 104^\circ$ .  
Find  $m\angle GHI$ .



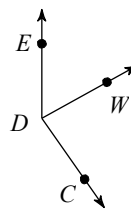
- 4) Find  $m\angle WVU$  if  $m\angle ZVU = 62^\circ$  and  
 $m\angle WVZ = 50^\circ$ .



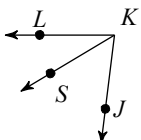
- 5)  $m\angle FMN = 99^\circ$  and  $m\angle LMF = 36^\circ$ . Find  
 $m\angle LMN$ .



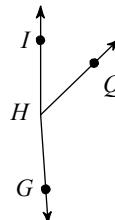
- 6) Find  $m\angle WDC$  if  $m\angle EDC = 140^\circ$  and  
 $m\angle EDW = 70^\circ$ .



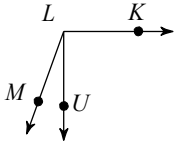
- 7) Find  $m\angle JKL$  if  $m\angle SKL = 31^\circ$   
and  $m\angle JKS = 52^\circ$ .



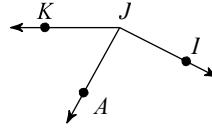
- 8) Find  $m\angle IHQ$  if  $m\angle IHG = 170^\circ$   
and  $m\angle QHG = 130^\circ$ .



- 9) Find  $m\angle KLU$  if  $m\angle ULM = 20^\circ$   
and  $m\angle KLM = 110^\circ$ .

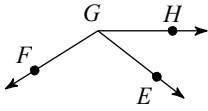


- 10) Find  $m\angle IJA$  if  $m\angle AJK = 60^\circ$   
and  $m\angle IJK = 150^\circ$ .

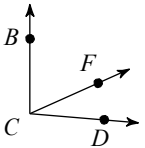


*More with algebra – next page*

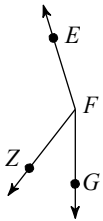
- 11)  $m\angle HGF = 16x + 4$ ,  $m\angle EGF = 110^\circ$ ,  
and  $m\angle HGE = 6x + 4$ . Find  $x$ .



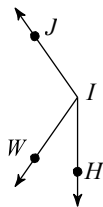
- 13)  $m\angle FCD = x + 5$ ,  $m\angle BCF = 2x - 9$ ,  
and  $m\angle BCD = 95^\circ$ . Find  $x$ .



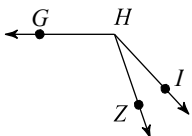
- 15)  $m\angle GFZ = 38^\circ$ ,  $m\angle ZFE = 2x + 125$ ,  
and  $m\angle GFE = x + 163$ . Find  $x$ .



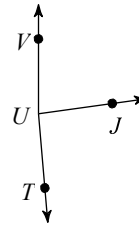
- 17) Find  $m\angle HIW$  if  $m\angle WIJ = 10x$ ,  
 $m\angle HIJ = 145^\circ$ , and  $m\angle HIW = 2x + 13$ .



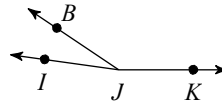
- 19)  $m\angle ZHG = 11x - 1$ ,  $m\angle IHZ = 24^\circ$ ,  
and  $m\angle IHG = 12x + 13$ . Find  $m\angle IHG$ .



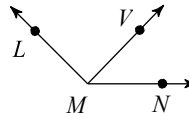
- 12)  $m\angle VUT = 175^\circ$ ,  $m\angle VUJ = 17x - 3$ ,  
and  $m\angle JUT = 17x + 8$ . Find  $x$ .



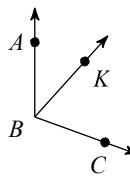
- 14) Find  $x$  if  $m\angle BJK = 146 + 2x$ ,  
 $m\angle IJK = 172^\circ$ , and  $m\angle IJB = 2x + 26$ .



- 16) Find  $x$  if  $m\angle LMN = 135^\circ$ ,  
 $m\angle LMV = -1 + 45x$ , and  $m\angle VMN = 23x$ .



- 18)  $m\angle ABC = 17x + 8$ ,  $m\angle ABK = 42^\circ$ ,  
and  $m\angle KBC = 12x - 4$ . Find  $m\angle ABC$ .



- 20)  $m\angle GFN = 4x + 10$ ,  $m\angle NFE = 14x + 3$ ,  
and  $m\angle GFE = 157^\circ$ . Find  $m\angle NFE$ .

