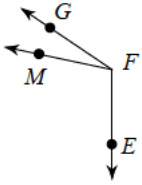


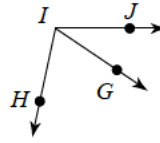
## Vectors - Measurement of angles

### Find measurement between vectors

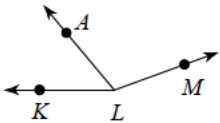
- 1) Find  $m\angle EFM$  if  $m\angle MFG = 22^\circ$   
and  $m\angle EFG = 124^\circ$ .



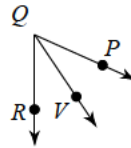
- 2) Find  $m\angle JIH$  if  $m\angle JIG = 34^\circ$   
and  $m\angle GIH = 68^\circ$ .



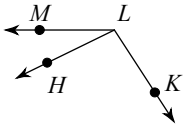
- 3)  $m\angle KLA = 50^\circ$  and  $m\angle KLM = 160^\circ$ .  
Find  $m\angle ALM$ .



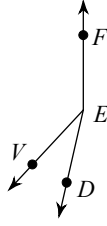
- 4) Find  $m\angle VQR$  if  $m\angle PQR = 66^\circ$   
and  $m\angle PQV = 32^\circ$ .



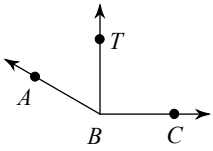
- 5)  $m\angle KLH = 97^\circ$  and  $m\angle HLM = 26^\circ$ .  
Find  $m\angle KLM$ .



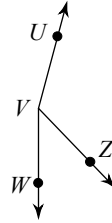
- 6)  $m\angle VEF = 137^\circ$  and  $m\angle DEV = 30^\circ$ .  
Find  $m\angle DEF$ .



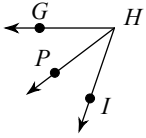
- 7) Find  $m\angle TBC$  if  $m\angle ABT = 60^\circ$   
and  $m\angle ABC = 150^\circ$ .



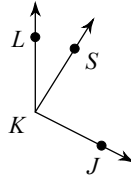
- 8)  $m\angle UVZ = 121^\circ$  and  $m\angle ZVW = 44^\circ$ .  
Find  $m\angle UVW$ .



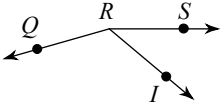
- 9)  $m\angle PHG = 37^\circ$  and  $m\angle IHP = 34^\circ$ .  
Find  $m\angle IHG$ .



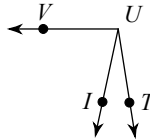
- 10)  $m\angle LKS = 32^\circ$  and  $m\angle LKJ = 117^\circ$ .  
Find  $m\angle SKJ$ .



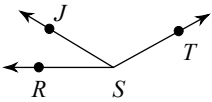
- 11) Find  $m\angle IRQ$  if  $m\angle SRI = 40^\circ$   
and  $m\angle SRQ = 164^\circ$ .



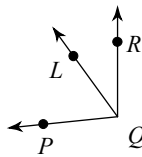
- 12)  $m\angle TUI = 21^\circ$  and  $m\angle IUV = 78^\circ$ .  
Find  $m\angle TUV$ .



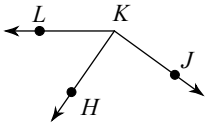
- 13) Find  $m\angle RSJ$  if  $m\angle RST = 151^\circ$   
and  $m\angle JST = 120^\circ$ .



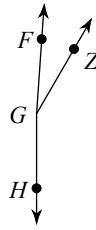
- 14)  $m\angle LQR = 36^\circ$  and  $m\angle PQL = 60^\circ$ .  
Find  $m\angle PQR$ .



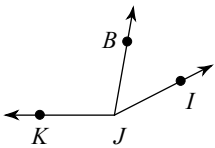
- 15)  $m\angle JKL = 144^\circ$  and  $m\angle JKH = 89^\circ$ .  
Find  $m\angle HKL$ .



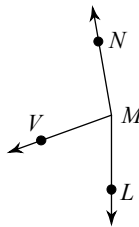
- 16)  $m\angle ZGH = 150^\circ$  and  $m\angle FGZ = 26^\circ$ .  
Find  $m\angle FGH$ .



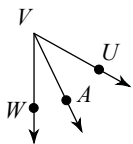
- 17)  $m\angle KJB = 100^\circ$  and  $m\angle KJI = 153^\circ$ .  
Find  $m\angle BJI$ .



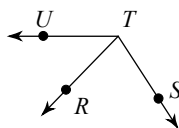
- 18)  $m\angle LMN = 170^\circ$  and  $m\angle VMN = 100^\circ$ .  
Find  $m\angle LMV$ .



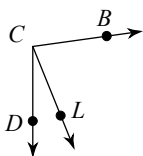
- 19)  $m\angle AVW = 26^\circ$  and  $m\angle UVA = 35^\circ$ .  
Find  $m\angle UVW$ .



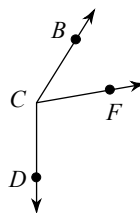
- 20) Find  $m\angle STU$  if  $m\angle RTU = 46^\circ$   
and  $m\angle STR = 77^\circ$ .



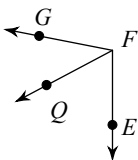
- 21) Find  $m\angle BCD$  if  $m\angle BCL = 76^\circ$   
and  $m\angle LCD = 22^\circ$ .



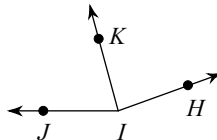
- 22)  $m\angle FCD = 100^\circ$  and  $m\angle BCF = 48^\circ$ .  
Find  $m\angle BCD$ .



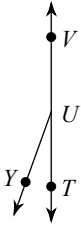
- 23) Find  $m\angle EFG$  if  $m\angle QFG = 39^\circ$   
and  $m\angle EFQ = 62^\circ$ .



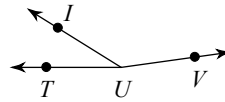
- 24) Find  $m\angle JIK$  if  $m\angle JIH = 160^\circ$   
and  $m\angle KIH = 85^\circ$ .



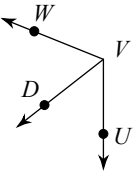
- 25) Find  $m\angle YUV$  if  $m\angle TUY = 20^\circ$   
and  $m\angle TUV = 180^\circ$ .



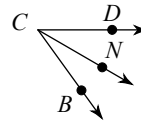
- 26) Find  $m\angle TUV$  if  $m\angle TUI = 32^\circ$   
and  $m\angle IUV = 140^\circ$ .



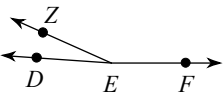
- 27) Find  $m\angle UVD$  if  $m\angle DVW = 60^\circ$   
and  $m\angle UVW = 112^\circ$ .



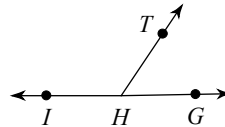
- 28) Find  $m\angle NCB$  if  $m\angle DCN = 30^\circ$   
and  $m\angle DCB = 54^\circ$ .



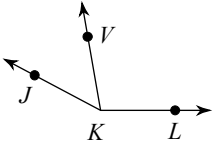
- 29)  $m\angle ZEF = 156^\circ$  and  $m\angle DEZ = 20^\circ$ .  
Find  $m\angle DEF$ .



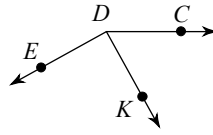
- 30) Find  $m\angle IHT$  if  $m\angle IHG = 179^\circ$   
and  $m\angle THG = 55^\circ$ .



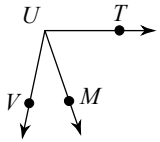
- 31) Find  $m\angle JKV$  if  $m\angle VKL = 100^\circ$   
and  $m\angle JKL = 152^\circ$ .



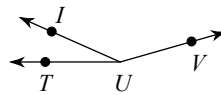
- 32)  $m\angle KDE = 90^\circ$  and  $m\angle CDE = 151^\circ$ .  
Find  $m\angle CDK$ .



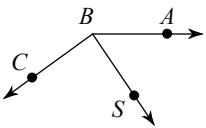
- 33)  $m\angle TUV = 102^\circ$  and  $m\angle MUV = 31^\circ$ .  
Find  $m\angle TUM$ .



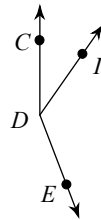
- 34) Find  $m\angle TUI$  if  $m\angle TUV = 164^\circ$   
and  $m\angle IUV = 140^\circ$ .



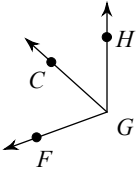
- 35)  $m\angle ABS = 56^\circ$  and  $m\angle ABC = 144^\circ$ .  
Find  $m\angle SBC$ .



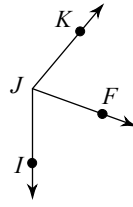
- 36) Find  $m\angle IDE$  if  $m\angle CDE = 159^\circ$   
and  $m\angle CDI = 35^\circ$ .



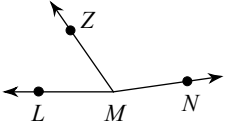
- 37)  $m\angle CGH = 48^\circ$  and  $m\angle FGH = 110^\circ$ .  
Find  $m\angle FGC$ .



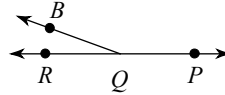
- 38) Find  $m\angle KJF$  if  $m\angle FJI = 70^\circ$   
and  $m\angle KJI = 140^\circ$ .



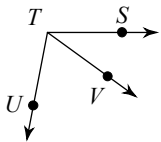
- 39)  $m\angle LMN = 172^\circ$  and  $m\angle LMZ = 55^\circ$ .  
Find  $m\angle ZMN$ .



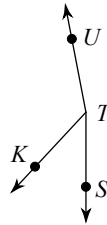
- 40) Find  $m\angle RQB$  if  $m\angle BQP = 160^\circ$   
and  $m\angle RQP = 180^\circ$ .



- 41)  $m\angle STU = 101^\circ$  and  $m\angle VTU = 65^\circ$ .  
Find  $m\angle STV$ .

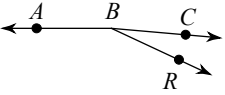


- 42)  $m\angle KTU = 126^\circ$  and  $m\angle STU = 169^\circ$ .  
Find  $m\angle STK$ .

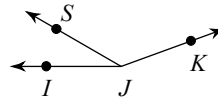




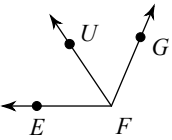
- 43)  $m\angle CBR = 20^\circ$  and  $m\angle CBA = 175^\circ$ .  
Find  $m\angle RBA$ .



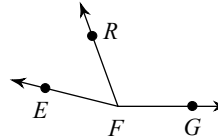
- 44) Find  $m\angle IJK$  if  $m\angle SJK = 130^\circ$   
and  $m\angle IJS = 30^\circ$ .



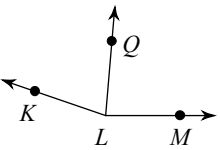
- 45) Find  $m\angle EFU$  if  $m\angle EFG = 113^\circ$   
and  $m\angle UFG = 57^\circ$ .



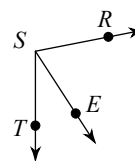
- 46)  $m\angle EFR = 56^\circ$  and  $m\angle RFG = 110^\circ$ .  
Find  $m\angle EFG$ .



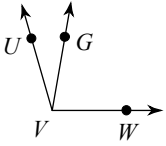
- 47) Find  $m\angle QLM$  if  $m\angle KLQ = 76^\circ$   
and  $m\angle KLM = 161^\circ$ .



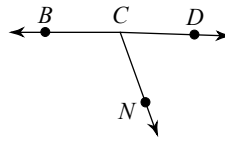
- 48) Find  $m\angle RSE$  if  $m\angle RST = 101^\circ$   
and  $m\angle EST = 33^\circ$ .



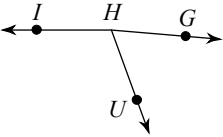
- 49)  $m\angle UVG = 26^\circ$  and  $m\angle UVW = 106^\circ$ .  
Find  $m\angle GVW$ .



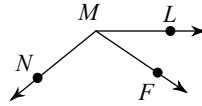
- 50)  $m\angle DCB = 178^\circ$  and  $m\angle DCN = 68^\circ$ .  
Find  $m\angle NCB$ .



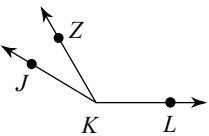
- 51)  $m\angle UHI = 110^\circ$  and  $m\angle GHU = 65^\circ$ .  
Find  $m\angle GHI$ .



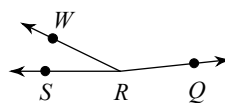
- 52)  $m\angle FMN = 107^\circ$  and  $m\angle LMF = 34^\circ$ .  
Find  $m\angle LMN$ .



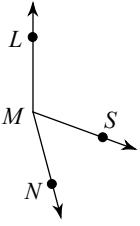
- 53)  $m\angle JKZ = 29^\circ$  and  $m\angle JKL = 149^\circ$ .  
Find  $m\angle ZKL$ .



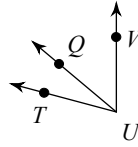
- 54)  $m\angle WRQ = 148^\circ$  and  $m\angle SRW = 26^\circ$ .  
Find  $m\angle SRQ$ .



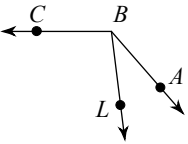
- 55) Find  $m\angle SMN$  if  $m\angle LMN = 165^\circ$   
and  $m\angle LMS = 110^\circ$ .



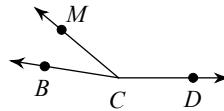
- 56) Find  $m\angle QUV$  if  $m\angle TUQ = 25^\circ$   
and  $m\angle TUV = 75^\circ$ .



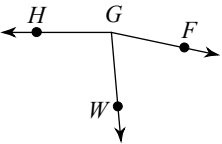
- 57)  $m\angle ABC = 131^\circ$  and  $m\angle ABL = 34^\circ$ .  
Find  $m\angle LBC$ .



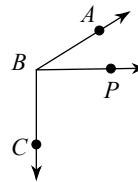
- 58)  $m\angle BCM = 31^\circ$  and  $m\angle MCD = 140^\circ$ .  
Find  $m\angle BCD$ .



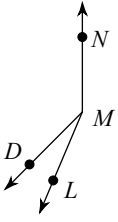
- 59)  $m\angle FGH = 168^\circ$  and  $m\angle FGW = 73^\circ$ .  
Find  $m\angle WGH$ .



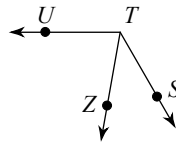
- 60)  $m\angle ABP = 31^\circ$  and  $m\angle ABC = 122^\circ$ .  
Find  $m\angle PBC$ .



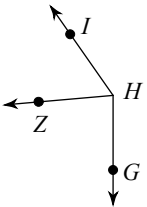
- 61) Find  $m\angle LMN$  if  $m\angle DMN = 135^\circ$   
and  $m\angle LMD = 22^\circ$ .



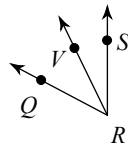
- 62) Find  $m\angle ZTU$  if  $m\angle STZ = 40^\circ$   
and  $m\angle STU = 120^\circ$ .



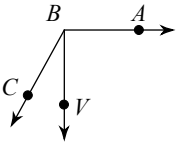
- 63) Find  $m\angle GHI$  if  $m\angle ZHI = 60^\circ$   
and  $m\angle GHZ = 85^\circ$ .



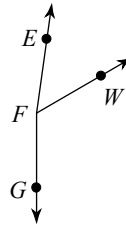
- 64) Find  $m\angle QRS$  if  $m\angle QRV = 36^\circ$   
and  $m\angle VRS = 26^\circ$ .



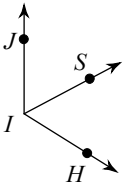
- 65)  $m\angle VBC = 29^\circ$  and  $m\angle ABV = 90^\circ$ .  
Find  $m\angle ABC$ .



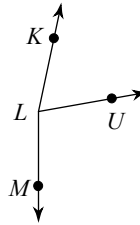
- 66)  $m\angle EFG = 172^\circ$  and  $m\angle WFG = 120^\circ$ .  
Find  $m\angle EFW$ .



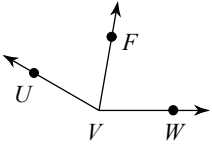
- 67)  $m\angle JIH = 122^\circ$  and  $m\angle JIS = 62^\circ$ .  
Find  $m\angle SIH$ .



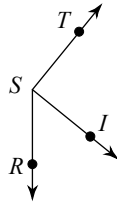
- 68)  $m\angle ULM = 100^\circ$  and  $m\angle KLU = 68^\circ$ .  
Find  $m\angle KLM$ .



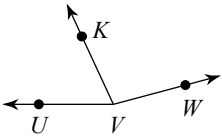
- 69)  $m\angle UVW = 150^\circ$  and  $m\angle FVW = 80^\circ$ .  
Find  $m\angle UVF$ .



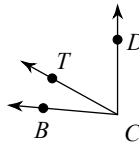
- 70) Find  $m\angle ISR$  if  $m\angle TSI = 90^\circ$   
and  $m\angle TSR = 141^\circ$ .



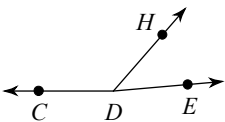
- 71) Find  $m\angle UVK$  if  $m\angle UVW = 165^\circ$   
and  $m\angle KVW = 100^\circ$ .



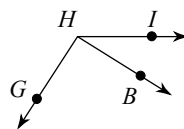
- 72) Find  $m\angle BCD$  if  $m\angle TCD = 61^\circ$   
and  $m\angle BCT = 24^\circ$ .



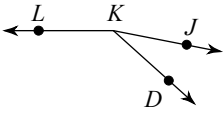
- 73) Find  $m\angle CDE$  if  $m\angle HDE = 44^\circ$   
and  $m\angle CDH = 131^\circ$ .



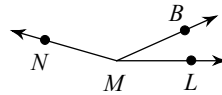
- 74)  $m\angle BHG = 91^\circ$  and  $m\angle IHG = 123^\circ$ .  
Find  $m\angle IHB$ .



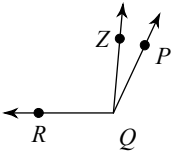
- 75)  $m\angle JKD = 31^\circ$  and  $m\angle DKL = 138^\circ$ .  
Find  $m\angle JKL$ .



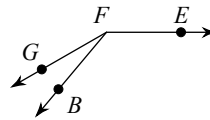
- 76)  $m\angle NMB = 140^\circ$  and  $m\angle NML = 164^\circ$ .  
Find  $m\angle BML$ .



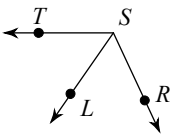
- 77) Find  $m\angle RQZ$  if  $m\angle RQP = 115^\circ$   
and  $m\angle ZQP = 20^\circ$ .



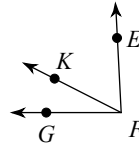
- 78)  $m\angle EFG = 150^\circ$  and  $m\angle BFG = 20^\circ$ .  
Find  $m\angle EFB$ .



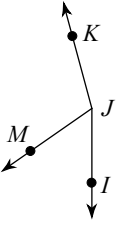
- 79)  $m\angle LST = 55^\circ$  and  $m\angle RSL = 60^\circ$ .  
Find  $m\angle RST$ .



- 80)  $m\angle KFE = 60^\circ$  and  $m\angle GFE = 87^\circ$ .  
Find  $m\angle GFK$ .



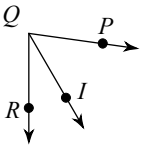
- 81) Find  $m\angle IJK$  if  $m\angle IJM = 55^\circ$   
and  $m\angle MJK = 110^\circ$ .



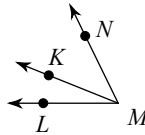
- 82)  $m\angle GMN = 153^\circ$  and  $m\angle LMG = 21^\circ$ .  
Find  $m\angle LMN$ .



- 83) Find  $m\angle PQR$  if  $m\angle PQI = 52^\circ$   
and  $m\angle IQR = 30^\circ$ .

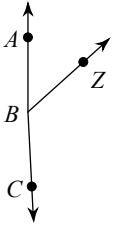


- 84)  $m\angle KMN = 42^\circ$  and  $m\angle LMK = 22^\circ$ .  
Find  $m\angle LMN$ .

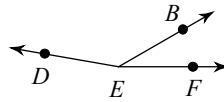




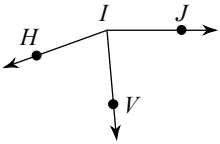
- 85) Find  $m\angle ABZ$  if  $m\angle ABC = 177^\circ$   
and  $m\angle ZBC = 129^\circ$ .



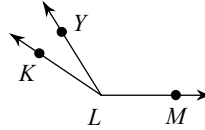
- 86) Find  $m\angle DEB$  if  $m\angle BEF = 30^\circ$   
and  $m\angle DEF = 170^\circ$ .



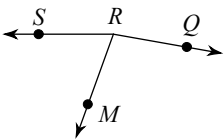
- 87)  $m\angle JIV = 85^\circ$  and  $m\angle VIH = 75^\circ$ .  
Find  $m\angle JIH$ .



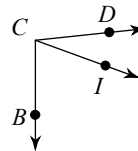
- 88) Find  $m\angle YLM$  if  $m\angle KLY = 24^\circ$   
and  $m\angle KLM = 146^\circ$ .



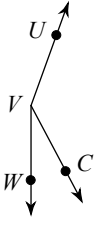
- 89) Find  $m\angle QRM$  if  $m\angle QRS = 170^\circ$   
and  $m\angle MRS = 70^\circ$ .



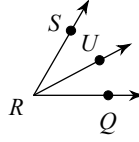
- 90)  $m\angle ICB = 70^\circ$  and  $m\angle DCB = 96^\circ$ .  
Find  $m\angle DCI$ .



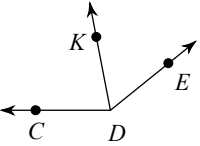
- 91) Find  $m\angle UVC$  if  $m\angle CVW = 28^\circ$   
and  $m\angle UVW = 160^\circ$ .



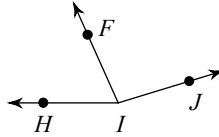
- 92)  $m\angle SRQ = 60^\circ$  and  $m\angle URQ = 28^\circ$ .  
Find  $m\angle SRU$ .



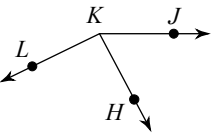
- 93) Find  $m\angle CDK$  if  $m\angle CDE = 141^\circ$   
and  $m\angle KDE = 62^\circ$ .



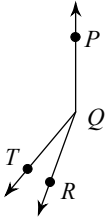
- 94) Find  $m\angle FIJ$  if  $m\angle HIF = 66^\circ$   
and  $m\angle HIJ = 163^\circ$ .



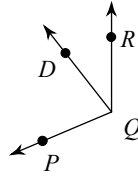
- 95) Find  $m\angle HKL$  if  $m\angle JKL = 154^\circ$   
and  $m\angle JKH = 62^\circ$ .



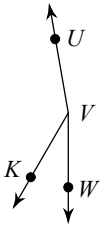
- 96) Find  $m\angle RQP$  if  $m\angle TQP = 140^\circ$   
and  $m\angle RQT = 20^\circ$ .



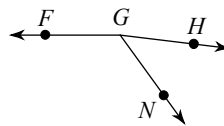
- 97) Find  $m\angle PQR$  if  $m\angle DQR = 38^\circ$   
and  $m\angle PQD = 75^\circ$ .



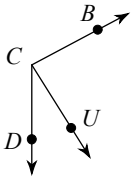
- 98) Find  $m\angle KVU$  if  $m\angle WVK = 30^\circ$   
and  $m\angle WVU = 170^\circ$ .



- 99) Find  $m\angle NGF$  if  $m\angle HGN = 47^\circ$   
and  $m\angle HGF = 173^\circ$ .

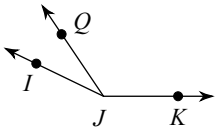


- 100)  $m\angle BCD = 118^\circ$  and  $m\angle UCD = 32^\circ$ .  
Find  $m\angle BCU$ .

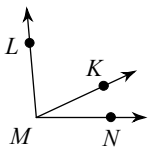


**Find the unknown**

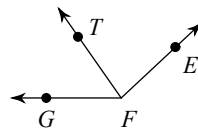
- 101) Find  $x$  if  $m\angle IJK = 154^\circ$ ,  
 $m\angle QJK = 125x - 1$ , and  $m\angle IJQ = 29x + 1$ .



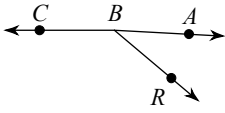
- 102)  $m\angle KMN = x + 16$ ,  $m\angle LMN = 95^\circ$ ,  
and  $m\angle LMK = 6x + 16$ . Find  $x$ .



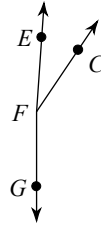
- 103)  $m\angle GFE = 137^\circ$ ,  $m\angle GFT = 54x + 1$ ,  
and  $m\angle TFE = 82x$ . Find  $x$ .



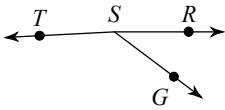
- 104) Find  $x$  if  $m\angle ABC = 177^\circ$ ,  
 $m\angle RBC = 14 + 14x$ , and  $m\angle ABR = 4x + 1$ .



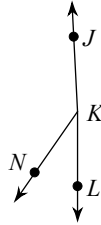
- 105) Find  $x$  if  $m\angle CFG = 19x - 6$ ,  
 $m\angle EFG = 176^\circ$ , and  $m\angle EFC = 2x + 14$ .



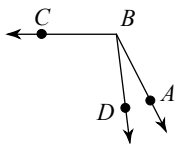
- 106)  $m\angle GST = 21x - 7$ ,  $m\angle RSG = 37^\circ$ ,  
and  $m\angle RST = 9 + 24x$ . Find  $x$ .



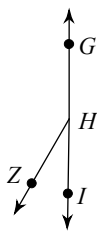
- 107) Find  $x$  if  $m\angle NKJ = 11x + 10$ ,  
 $m\angle LKJ = 177^\circ$ , and  $m\angle LKN = x + 23$ .



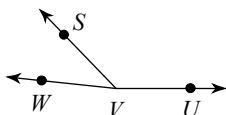
- 108)  $m\angle DBC = -7 + 13x$ ,  $m\angle ABD = x + 12$ ,  
and  $m\angle ABC = 117^\circ$ . Find  $x$ .



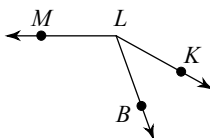
- 109) Find  $x$  if  $m\angle IHZ = x + 31$ ,  $m\angle IHG = 179^\circ$ ,  
and  $m\angle ZHG = x + 152$ .



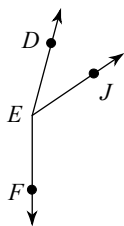
- 110) Find  $x$  if  $m\angle WVU = 20x - 6$ ,  
 $m\angle WVS = 40^\circ$ , and  $m\angle SVU = 15x - 1$ .



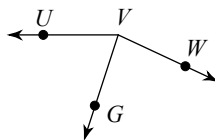
- 111)  $m\angle KLM = 16x + 7$ ,  $m\angle KLB = 41^\circ$ ,  
and  $m\angle BLM = 11x + 11$ . Find  $x$ .



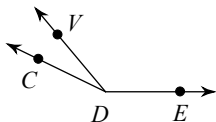
- 112)  $m\angle DEF = 11 + 22x$ ,  $m\angle DEJ = 41^\circ$ ,  
and  $m\angle JEF = 17x + 5$ . Find  $x$ .



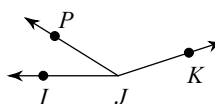
- 113)  $m\angle GVU = 73x - 1$ ,  $m\angle WVG = 83^\circ$ ,  
and  $m\angle WVU = 156x - 1$ . Find  $x$ .



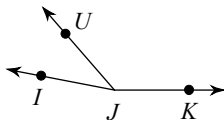
- 114)  $m\angle CDV = 9x - 3$ ,  $m\angle CDE = 50x + 4$ ,  
and  $m\angle VDE = 130^\circ$ . Find  $x$ .



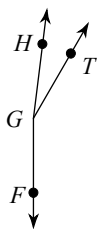
- 115)  $m\angle IJP = x + 42$ ,  $m\angle PJK = x + 140$ ,  
and  $m\angle IJK = 162^\circ$ . Find  $x$ .



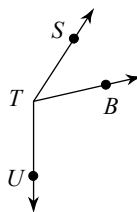
- 116)  $m\angle IJU = 3x + 8$ ,  $m\angle IJK = 15x + 19$ ,  
and  $m\angle UJK = 131^\circ$ . Find  $x$ .



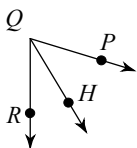
- 117) Find  $x$  if  $m\angle HGT = x + 24$ ,  
 $m\angle TGF = x + 151$ , and  $m\angle HGF = 173^\circ$ .



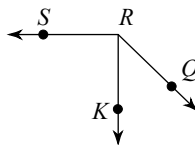
- 118)  $m\angle STB = 44^\circ$ ,  $m\angle BTU = 33x + 4$ ,  
and  $m\angle STU = 50x - 3$ . Find  $x$ .



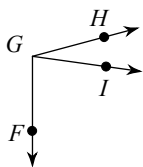
- 119)  $m\angle PQR = 7x + 10$ ,  $m\angle PQH = 42^\circ$ ,  
and  $m\angle HQR = 3x + 4$ . Find  $x$ .



- 120)  $m\angle QRS = 18x + 10$ ,  $m\angle KRS = 12x + 6$ ,  
and  $m\angle QRK = 46^\circ$ . Find  $x$ .

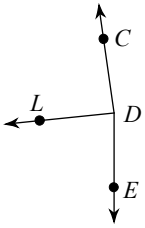


- 121)  $m\angle IGF = 21x - 2$ ,  $m\angle HGF = 25x + 5$ ,  
and  $m\angle HGI = 23^\circ$ . Find  $x$ .

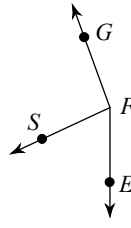




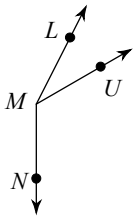
- 122) Find  $x$  if  $m\angle EDL = 8x - 4$ ,  $m\angle LDC = 88^\circ$ ,  
and  $m\angle EDC = 15x + 7$ .



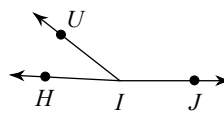
- 123)  $m\angle SFG = 12x - 1$ ,  $m\angle EFS = 65^\circ$ ,  
and  $m\angle EFG = 8 + 19x$ . Find  $x$ .



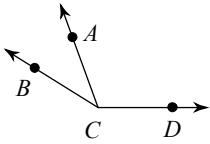
- 124)  $m\angle LMN = 15x + 3$ ,  $m\angle UMN = 120^\circ$ ,  
and  $m\angle LMU = 2x + 13$ . Find  $x$ .



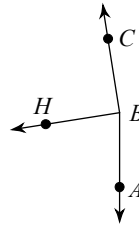
- 125)  $m\angle HIU = 35^\circ$ ,  $m\angle HIJ = 16x + 17$ ,  
and  $m\angle UIJ = 15x - 8$ . Find  $x$ .



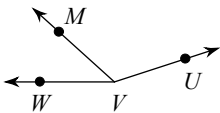
- 126) Find  $x$  if  $m\angle ACD = x + 113$ ,  
 $m\angle BCD = 148^\circ$ , and  $m\angle BCA = x + 41$ .



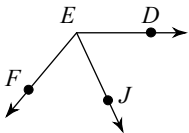
- 127)  $m\angle ABH = 81^\circ$ ,  $m\angle HBC = 2x + 90$ ,  
and  $m\angle ABC = x + 171$ . Find  $x$ .



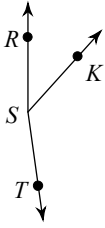
- 128)  $m\angle MVU = x + 121$ ,  $m\angle WVU = 162^\circ$ ,  
and  $m\angle WVM = x + 43$ . Find  $x$ .



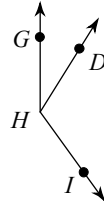
- 129) Find  $x$  if  $m\angle DEJ = 65^\circ$ ,  $m\angle JEF = -1 + 33x$ ,  
and  $m\angle DEF = 2 + 64x$ .



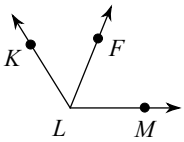
- 130)  $m\angle KST = 9x + 22$ ,  $m\angle RST = 14x + 4$ ,  
and  $m\angle RSK = 42^\circ$ . Find  $x$ .



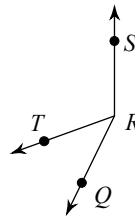
- 131) Find  $x$  if  $m\angle GHI = 144^\circ$ ,  
 $m\angle DHI = 29x - 4$ , and  $m\angle GHD = 7x + 4$ .



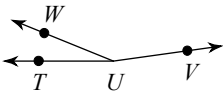
- 132) Find  $x$  if  $m\angle FLM = 68^\circ$ ,  $m\angle KLF = 9x + 9$ ,  
and  $m\angle KLM = 7 + 23x$ .



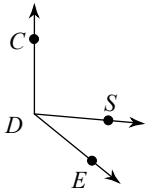
- 133) Find  $x$  if  $m\angle QRS = 17x + 1$ ,  
 $m\angle QRT = 4x + 8$ , and  $m\angle TRS = 110^\circ$ .



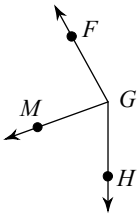
- 134)  $m\angle TUV = 16x - 4$ ,  $m\angle WUV = 12x + 18$ ,  
and  $m\angle TUW = 22^\circ$ . Find  $x$ .



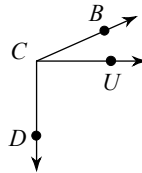
- 135) Find  $x$  if  $m\angle CDS = x + 99$ ,  $m\angle CDE = 129^\circ$ ,  
and  $m\angle SDE = x + 38$ .



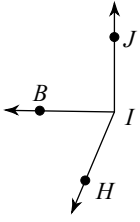
- 136)  $m\angle MGF = 83 + x$ ,  $m\angle HGM = x + 72$ ,  
and  $m\angle HGF = 151^\circ$ . Find  $x$ .



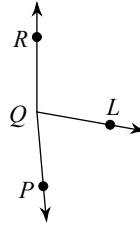
- 137) Find  $x$  if  $m\angle UCD = 90^\circ$ ,  $m\angle BCU = 4x$ ,  
and  $m\angle BCD = 19x$ .



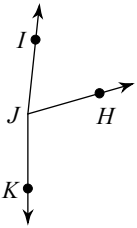
- 138)  $m\angle HIB = 2 + 22x$ ,  $m\angle BIJ = 29x + 2$ ,  
and  $m\angle HIJ = 157^\circ$ . Find  $x$ .



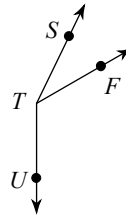
- 139)  $m\angle RQL = 34x - 2$ ,  $m\angle RQP = 58x + 1$ ,  
and  $m\angle LQP = 75^\circ$ . Find  $x$ .



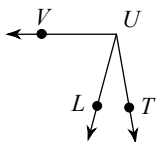
- 140) Find  $x$  if  $m\angle IJK = 174x$ ,  $m\angle HJK = 106^\circ$ ,  
and  $m\angle IJH = 68x$ .



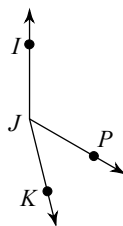
- 141)  $m\angle STU = 4 + 30x$ ,  $m\angle STF = 34^\circ$ ,  
and  $m\angle FTU = 24x$ . Find  $x$ .



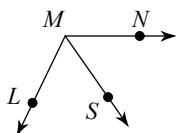
- 142)  $m\angle LUV = 12x + 3$ ,  $m\angle TUL = 4x + 1$ ,  
and  $m\angle TUV = 100^\circ$ . Find  $x$ .



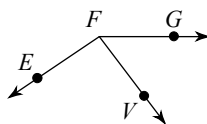
- 143)  $m\angle IJK = 16x - 10$ ,  $m\angle IJP = 120^\circ$ ,  
and  $m\angle PJK = 4x + 2$ . Find  $x$ .



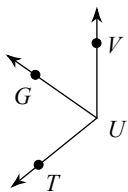
- 144)  $m\angle NML = 116^\circ$ ,  $m\angle NMS = x + 60$ ,  
and  $m\angle SML = x + 66$ . Find  $x$ .



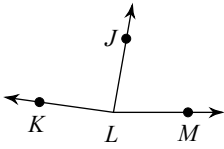
- 145)  $m\angle VFE = 93^\circ$ ,  $m\angle GFE = 13x + 3$ ,  
and  $m\angle GFV = 3x + 20$ . Find  $x$ .



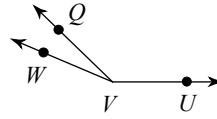
- 146) Find  $x$  if  $m\angle TUV = 22x - 3$ ,  $m\angle TUG = 74^\circ$ ,  
and  $m\angle GUV = 8x + 7$ .



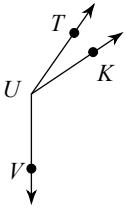
- 147)  $m\angle KLM = 172^\circ$ ,  $m\angle KLJ = x + 100$ ,  
and  $m\angle JLM = x + 88$ . Find  $x$ .



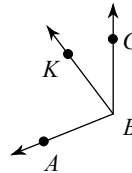
- 148)  $m\angle QVU = 136^\circ$ ,  $m\angle WVU = 157x$ ,  
and  $m\angle WVQ = 20x + 1$ . Find  $x$ .



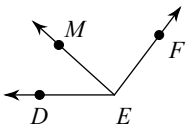
- 149)  $m\angle KUV = 124^\circ$ ,  $m\angle TUV = 29x$ ,  
and  $m\angle TUK = 5x - 4$ . Find  $x$ .



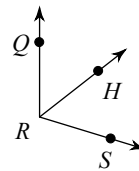
- 150)  $m\angle ABC = 112^\circ$ ,  $m\angle KBC = 17x + 3$ ,  
and  $m\angle ABK = 37x + 1$ . Find  $x$ .



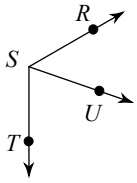
- 151)  $m\angle MEF = 21x + 1$ ,  $m\angle DEF = 30x + 7$ ,  
and  $m\angle DEM = 42^\circ$ . Find  $x$ .



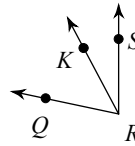
- 152) Find  $x$  if  $m\angle QRS = 15x + 2$ ,  $m\angle HRS = 55^\circ$ ,  
and  $m\angle QRH = 8x - 4$ .



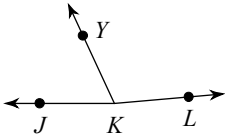
- 153)  $m\angle UST = 7x + 8$ ,  $m\angle RST = 120^\circ$ ,  
and  $m\angle RSU = 4x + 13$ . Find  $x$ .



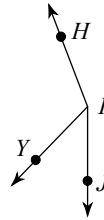
- 154)  $m\angle QRS = 19x + 2$ ,  $m\angle KRS = 6x + 4$ ,  
and  $m\angle QRK = 50^\circ$ . Find  $x$ .



- 155)  $m\angle YKL = 110^\circ$ ,  $m\angle JKY = 4x + 17$ ,  
and  $m\angle JKL = 13x + 19$ . Find  $x$ .

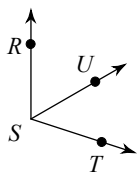


- 156) Find  $x$  if  $m\angle JIH = 159^\circ$ ,  $m\angle JIY = x + 53$ ,  
and  $m\angle YIH = x + 124$ .

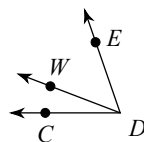




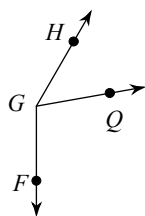
- 157) Find  $x$  if  $m\angle UST = x + 59$ ,  $m\angle RST = 108^\circ$ ,  
and  $m\angle RSU = x + 71$ .



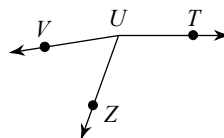
- 158)  $m\angle WDE = x + 52$ ,  $m\angle CDE = 71^\circ$ ,  
and  $m\angle CDW = x + 23$ . Find  $x$ .



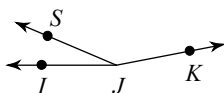
- 159) Find  $x$  if  $m\angle HGF = 2x + 150$ ,  
 $m\angle QGF = x + 100$ , and  $m\angle HGQ = 50^\circ$ .



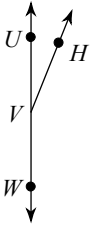
- 160) Find  $x$  if  $m\angle TUV = 171^\circ$ ,  
 $m\angle TUZ = x + 122$ , and  $m\angle ZUV = x + 73$ .



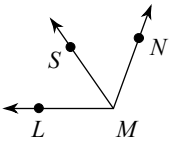
- 161) Find  $x$  if  $m\angle IJK = 169^\circ$ ,  $m\angle IJS = 2x + 5$ ,  
and  $m\angle SJK = -7 + 17x$ .



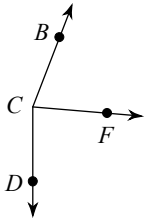
- 162)  $m\angle UVH = 22x$ ,  $m\angle HVW = 158^\circ$ ,  
and  $m\angle UVW = 181x - 1$ . Find  $x$ .



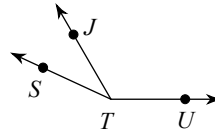
- 163) Find  $x$  if  $m\angle LMN = 36x + 2$ ,  $m\angle LMS = 55^\circ$ ,  
and  $m\angle SMN = -2 + 19x$ .



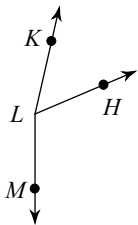
- 164)  $m\angle BCD = 159^\circ$ ,  $m\angle BCF = x + 82$ ,  
and  $m\angle FCD = x + 93$ . Find  $x$ .



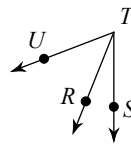
- 165) Find  $x$  if  $m\angle JTU = 16x + 8$ ,  $m\angle STJ = 35^\circ$ ,  
and  $m\angle STU = 21x + 8$ .



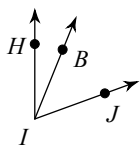
- 166)  $m\angle KLM = 167x$ ,  $m\angle HLM = 113^\circ$ ,  
and  $m\angle KLH = 55x - 1$ . Find  $x$ .



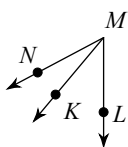
- 167)  $m\angle STU = 13x + 4$ ,  $m\angle STR = 22^\circ$ ,  
and  $m\angle RTU = 9x + 2$ . Find  $x$ .



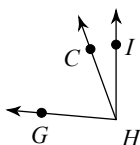
- 168) Find  $x$  if  $m\angle HIJ = 7x - 7$ ,  $m\angle BIJ = 48^\circ$ ,  
and  $m\angle HIB = 3x - 11$ .



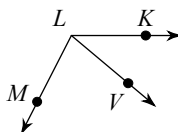
- 169) Find  $x$  if  $m\angle LMN = 62^\circ$ ,  $m\angle LMK = x + 40$ ,  
and  $m\angle KMN = x + 22$ .



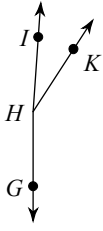
- 170)  $m\angle GHI = 85^\circ$ ,  $m\angle CHI = 11x - 2$ ,  
and  $m\angle GHC = 31x + 3$ . Find  $x$ .



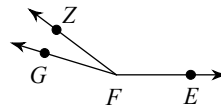
- 171)  $m\angle VLM = 12x + 5$ ,  $m\angle KLV = 40^\circ$ ,  
and  $m\angle KLM = 18x + 9$ . Find  $x$ .



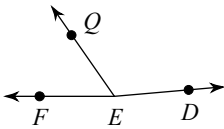
- 172) Find  $x$  if  $m\angle IHK = x + 39$ ,  $m\angle IHG = 176^\circ$ ,  
and  $m\angle KHG = x + 157$ .



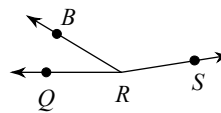
- 173)  $m\angle GFZ = 10 + x$ ,  $m\angle GFE = 163^\circ$ ,  
and  $m\angle ZFE = 14x + 3$ . Find  $x$ .



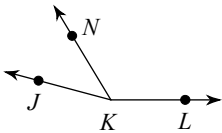
- 174) Find  $x$  if  $m\angle QED = 25x - 5$ ,  
 $m\angle FED = 36x - 5$ , and  $m\angle FEQ = 55^\circ$ .



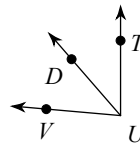
- 175) Find  $x$  if  $m\angle QRB = 16x - 1$ ,  
 $m\angle BRS = 140^\circ$ , and  $m\angle QRS = 86x - 1$ .



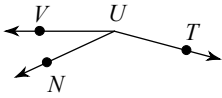
- 176) Find  $x$  if  $m\angle NKL = 121^\circ$ ,  
 $m\angle JKL = 56x - 3$ , and  $m\angle JKN = 15x - 1$ .



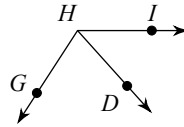
- 177)  $m\angle VUT = 85^\circ$ ,  $m\angle DUT = 10x + 1$ ,  
and  $m\angle VUD = 12x - 4$ . Find  $x$ .



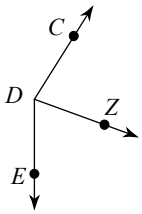
- 178)  $m\angle TUV = 82x + 1$ ,  $m\angle TUN = 69x + 2$ ,  
and  $m\angle NUV = 25^\circ$ . Find  $x$ .



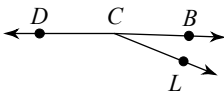
- 179) Find  $x$  if  $m\angle IHD = 48^\circ$ ,  $m\angle IHG = 29x + 7$ ,  
and  $m\angle DHG = 18x + 3$ .



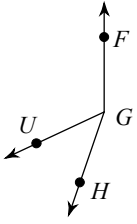
- 180) Find  $x$  if  $m\angle ZDE = 70^\circ$ ,  $m\angle CDE = 20x + 8$ ,  
and  $m\angle CDZ = 10x + 8$ .



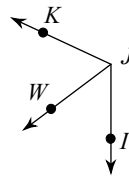
- 181) Find  $x$  if  $m\angle BCL = 20^\circ$ ,  $m\angle BCD = 17x - 9$ ,  
and  $m\angle LCD = 15x - 7$ .



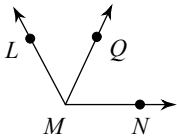
- 182)  $m\angle HGF = 18x - 1$ ,  $m\angle HGU = 46^\circ$ ,  
and  $m\angle UGF = 11x + 16$ . Find  $x$ .



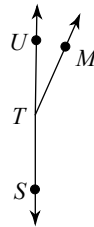
- 183) Find  $x$  if  $m\angle WJK = 5x + 7$ ,  $m\angle IJK = 115^\circ$ ,  
and  $m\angle IJW = 5x - 2$ .



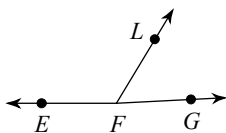
- 184)  $m\angle LMQ = 5x - 7$ ,  $m\angle QMN = 65^\circ$ ,  
and  $m\angle LMN = 10x - 2$ . Find  $x$ .



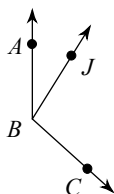
- 185)  $m\angle UTS = 179^\circ$ ,  $m\angle UTM = x + 25$ ,  
and  $m\angle MTS = x + 158$ . Find  $x$ .



- 186) Find  $x$  if  $m\angle EFL = 11x + 11$ ,  
 $m\angle EFG = 177^\circ$ , and  $m\angle LFG = 6x - 4$ .



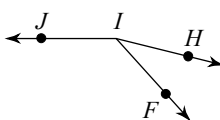
- 187)  $m\angle ABC = 133x - 1$ ,  $m\angle JBC = 100^\circ$ ,  
and  $m\angle ABJ = 31x + 1$ . Find  $x$ .



- 188) Find  $x$  if  $m\angle PQR = 170^\circ$ ,  
 $m\angle SQR = x + 158$ , and  $m\angle PQS = x + 28$ .

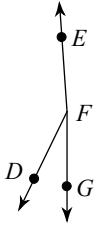


- 189) Find  $x$  if  $m\angle HIF = 34^\circ$ ,  $m\angle HIJ = 1 + 33x$ ,  
and  $m\angle FIJ = 27x - 3$ .

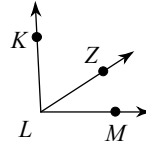




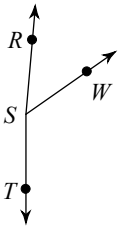
- 190)  $m\angle GFD = 7x + 5$ ,  $m\angle GFE = 58x + 2$ ,  
and  $m\angle DFE = 150^\circ$ . Find  $x$ .



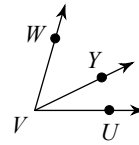
- 191) Find  $x$  if  $m\angle ZLM = 6x - 3$ ,  
 $m\angle KLZ = 9x + 6$ , and  $m\angle KLM = 93^\circ$ .



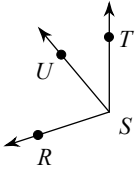
- 192) Find  $x$  if  $m\angle RST = 18x - 5$ ,  
 $m\angle WST = 125^\circ$ , and  $m\angle RSW = 5x$ .



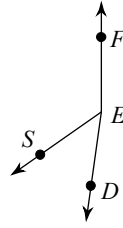
- 193) Find  $x$  if  $m\angle WVY = 48^\circ$ ,  $m\angle YVU = x + 14$ ,  
and  $m\angle WVU = 7x - 10$ .



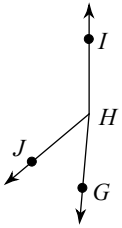
- 194) Find  $x$  if  $m\angle RSU = 6x + 2$ ,  $m\angle UST = 40^\circ$ ,  
and  $m\angle RST = 9x + 9$ .



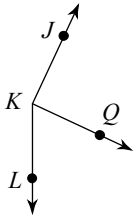
- 195)  $m\angle DES = 3x + 14$ ,  $m\angle DEF = 14x + 18$ ,  
and  $m\angle SEF = 125^\circ$ . Find  $x$ .



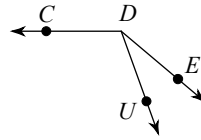
- 196) Find  $x$  if  $m\angle JHI = 130^\circ$ ,  $m\angle GHJ = 10x - 5$ ,  
and  $m\angle GHI = 35x$ .



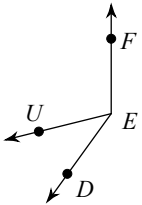
- 197) Find  $x$  if  $m\angle QKL = 66x - 1$ ,  
 $m\angle JKL = 155^\circ$ , and  $m\angle JKQ = -1 + 91x$ .



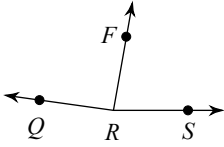
- 198) Find  $x$  if  $m\angle EDC = 28x$ ,  $m\angle EDU = 30^\circ$ ,  
and  $m\angle UDC = 22x$ .



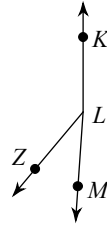
- 199) Find  $x$  if  $m\angle UEF = 13x$ ,  $m\angle DEF = 19x - 8$ ,  
and  $m\angle DEU = 40^\circ$ .



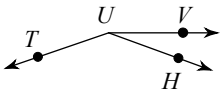
- 200) Find  $x$  if  $m\angle FRS = 20x$ ,  $m\angle QRS = 172^\circ$ , and  $m\angle QRF = 23x$ .



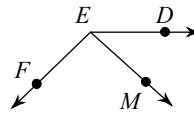
- 201) Find  $m\angle ZLK$  if  $m\angle MLZ = x + 47$ ,  $m\angle MLK = 176^\circ$ , and  $m\angle ZLK = x + 151$ .



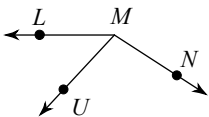
- 202)  $m\angle HUT = 141^\circ$ ,  $m\angle VUH = 2x + 8$ , and  $m\angle VUT = 25x + 11$ . Find  $m\angle VUH$ .



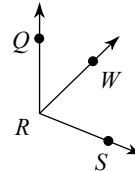
- 203)  $m\angle DEF = 12x + 4$ ,  $m\angle DEM = 4x - 2$ , and  $m\angle MEF = 94^\circ$ . Find  $m\angle DEM$ .



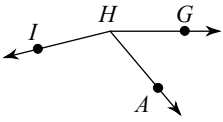
- 204) Find  $m\angle NMU$  if  $m\angle NMU = 12x - 8$ ,  $m\angle NML = 16x + 3$ , and  $m\angle UML = 47^\circ$ .



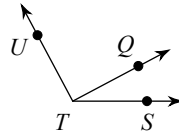
- 205) Find  $m\angle WRS$  if  $m\angle WRS = x + 69$ ,  $m\angle QRW = x + 49$ , and  $m\angle QRS = 112^\circ$ .



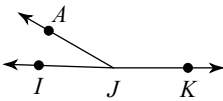
- 206) Find  $m\angle GHA$  if  $m\angle AHI = 9x + 8$ ,  
 $m\angle GHA = 4x + 2$ , and  $m\angle GHI = 166^\circ$ .



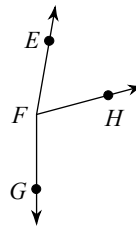
- 207) Find  $m\angle UTQ$  if  $m\angle QTS = 2x + 28$ ,  
 $m\angle UTQ = 2x + 90$ , and  $m\angle UTS = 118^\circ$ .



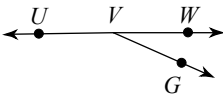
- 208) Find  $m\angle IJA$  if  $m\angle IJA = 4x + 8$ ,  
 $m\angle AJK = 150^\circ$ , and  $m\angle IJK = 3 + 35x$ .



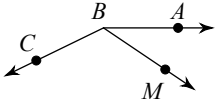
- 209)  $m\angle EFH = 5 + 12x$ ,  $m\angle EFG = -5 + 35x$ ,  
and  $m\angle HFG = 105^\circ$ . Find  $m\angle EFH$ .



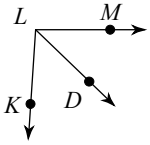
- 210)  $m\angle GVU = x + 157$ ,  $m\angle WVU = 179^\circ$ ,  
and  $m\angle WVG = x + 26$ . Find  $m\angle GVU$ .



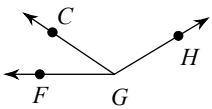
- 211) Find  $m\angle MBC$  if  $m\angle ABM = 34^\circ$ ,  
 $m\angle MBC = 39x + 3$ , and  $m\angle ABC = 51x + 1$ .



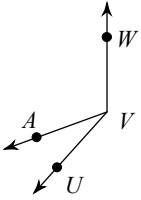
- 212) Find  $m\angle DLK$  if  $m\angle MLK = 94^\circ$ ,  
 $m\angle DLK = x + 59$ , and  $m\angle MLD = x + 53$ .



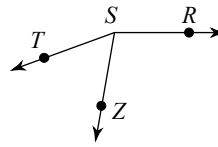
- 213) Find  $m\angle CGH$  if  $m\angle FGC = 34^\circ$ ,  
 $m\angle CGH = 116x - 1$ , and  $m\angle FGH = 149x$ .



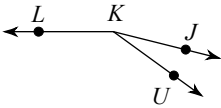
- 214)  $m\angle UVA = 28^\circ$ ,  $m\angle UVW = 27x + 3$ ,  
and  $m\angle AVW = 22x$ . Find  $m\angle AVW$ .



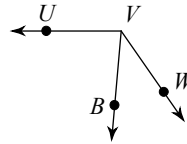
- 215) Find  $m\angle ZST$  if  $m\angle RSZ = x + 101$ ,  
 $m\angle RST = 160^\circ$ , and  $m\angle ZST = x + 61$ .



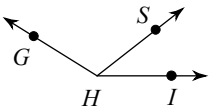
- 216)  $m\angle UKL = 144x$ ,  $m\angle JKL = 166^\circ$ ,  
and  $m\angle JKU = 22x$ . Find  $m\angle JKU$ .



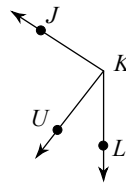
- 217)  $m\angle WVU = 14x - 1$ ,  $m\angle BVU = 85^\circ$ ,  
and  $m\angle WVB = 3x + 13$ . Find  $m\angle WVU$ .



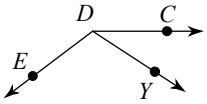
- 218) Find  $m\angle SHI$  if  $m\angle GHI = 148x$ ,  
 $m\angle GHS = 110^\circ$ , and  $m\angle SHI = 37x + 1$ .



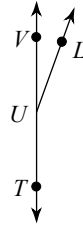
- 219) Find  $m\angle UKJ$  if  $m\angle UKJ = 8x + 5$ ,  
 $m\angle LKJ = 12x + 3$ , and  $m\angle LKU = 38^\circ$ .



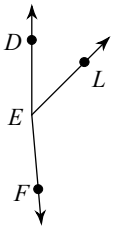
- 220)  $m\angle CDE = 23x + 5$ ,  $m\angle CDY = 33^\circ$ ,  
and  $m\angle YDE = 17x + 8$ . Find  $m\angle YDE$ .



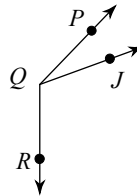
- 221)  $m\angle VUL = x + 30$ ,  $m\angle LUT = x + 170$ ,  
and  $m\angle VUT = 180^\circ$ . Find  $m\angle LUT$ .



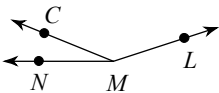
- 222) Find  $m\angle DEL$  if  $m\angle DEF = 24x + 7$ ,  
 $m\angle LEF = 130^\circ$ , and  $m\angle DEL = 6x + 3$ .



- 223) Find  $m\angle PQJ$  if  $m\angle PQJ = x + 37$ ,  
 $m\angle PQR = 136^\circ$ , and  $m\angle JQR = x + 121$ .

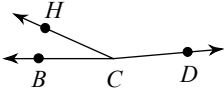


- 224) Find  $m\angle NMC$  if  $m\angle NML = 162^\circ$ ,  
 $m\angle NMC = x + 11$ , and  $m\angle CML = 13x - 3$ .

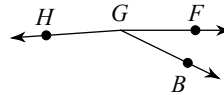




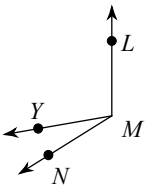
- 225) Find  $m\angle HCD$  if  $m\angle BCH = 24^\circ$ ,  
 $m\angle BCD = 176x - 1$ ,  
and  $m\angle HCD = 150x + 1$ .



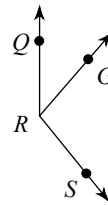
- 226)  $m\angle BGH = x + 155$ ,  $m\angle FGH = 176^\circ$ ,  
and  $m\angle FGB = x + 31$ . Find  $m\angle BGH$ .



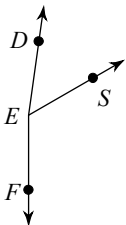
- 227) Find  $m\angle NML$  if  $m\angle NML = 24x + 2$ ,  
 $m\angle YML = 100^\circ$ , and  $m\angle NMY = -3 + 5x$ .



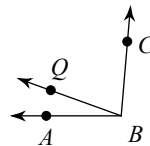
- 228)  $m\angle QRS = 14x + 1$ ,  $m\angle GRS = 11x - 10$ ,  
and  $m\angle QRG = 41^\circ$ . Find  $m\angle QRS$ .



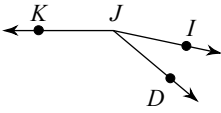
- 229) Find  $m\angle DEF$  if  $m\angle DES = 3x + 16$ ,  
 $m\angle DEF = 15x - 8$ , and  $m\angle SEF = 120^\circ$ .



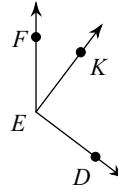
- 230)  $m\angle ABC = 8x - 1$ ,  $m\angle QBC = 75^\circ$ ,  
and  $m\angle ABQ = 2x - 4$ . Find  $m\angle ABC$ .



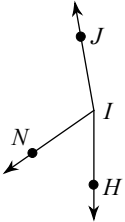
- 231)  $m\angle DJK = x + 151$ ,  $m\angle IJD = x + 39$ ,  
and  $m\angle IJK = 168^\circ$ . Find  $m\angle DJK$ .



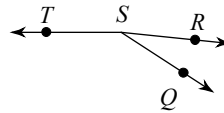
- 232) Find  $m\angle FEK$  if  $m\angle KED = x + 102$ ,  
 $m\angle FED = 127^\circ$ , and  $m\angle FEK = x + 49$ .



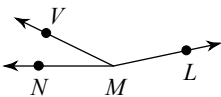
- 233)  $m\angle HIJ = 17x$ ,  $m\angle NIJ = 115^\circ$ ,  
and  $m\angle HIN = 5 + 5x$ . Find  $m\angle HIN$ .



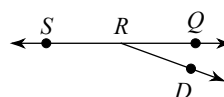
- 234) Find  $m\angle RSQ$  if  $m\angle RST = 174^\circ$ ,  
 $m\angle RSQ = 3x - 9$ , and  $m\angle QST = 12x + 3$ .



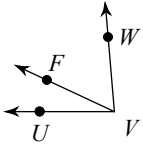
- 235)  $m\angle NML = 21x$ ,  $m\angle VML = 16x + 14$ ,  
and  $m\angle NMV = 26^\circ$ . Find  $m\angle VML$ .



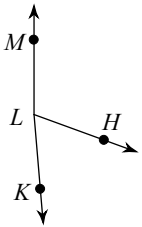
- 236)  $m\angle DRS = 160^\circ$ ,  $m\angle QRD = 6x + 2$ ,  
and  $m\angle QRS = 59x + 3$ . Find  $m\angle QRD$ .



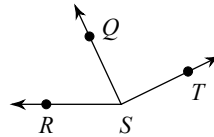
- 237) Find  $m\angle UVF$  if  $m\angle FVW = 60^\circ$ ,  
 $m\angle UVF = 4x + 5$ , and  $m\angle UVW = 18x - 5$ .



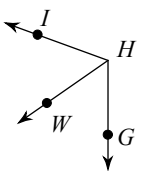
- 238)  $m\angle HLK = 7x + 9$ ,  $m\angle MLH = 14x - 2$ ,  
and  $m\angle MLK = 175^\circ$ . Find  $m\angle MLH$ .



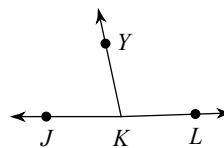
- 239) Find  $m\angle RSQ$  if  $m\angle QST = 12 + 11x$ ,  
 $m\angle RSQ = 8x + 9$ , and  $m\angle RST = 154^\circ$ .



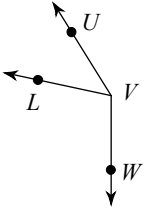
- 240)  $m\angle WHI = 55^\circ$ ,  $m\angle GHI = 10x + 10$ ,  
and  $m\angle GHW = 6x - 5$ . Find  $m\angle GHW$ .



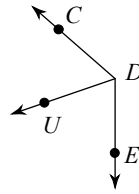
- 241)  $m\angle YKL = 9x - 8$ ,  $m\angle JKL = 14x + 10$ ,  
and  $m\angle JKY = 78^\circ$ . Find  $m\angle JKL$ .



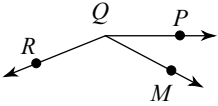
- 242) Find  $m\angle WVU$  if  $m\angle LVU = x + 58$ ,  
 $m\angle WVU = 148^\circ$ , and  $m\angle VWL = 114 + x$ .



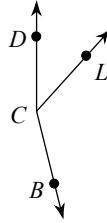
- 243)  $m\angle EDU = 71^\circ$ ,  $m\angle EDC = 130x + 1$ ,  
and  $m\angle UDC = 59x + 1$ . Find  $m\angle EDC$ .



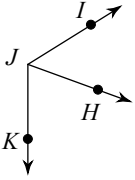
- 244)  $m\angle PQM = x + 38$ ,  $m\angle MQR = x + 140$ ,  
and  $m\angle PQR = 158^\circ$ . Find  $m\angle PQM$ .



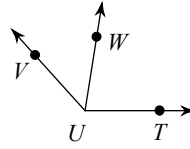
- 245) Find  $m\angle DCL$  if  $m\angle DCB = 166^\circ$ ,  
 $m\angle LCB = 63x - 2$ , and  $m\angle DCL = 21x$ .



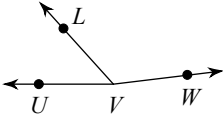
- 246) Find  $m\angle IJK$  if  $m\angle IJK = 19x + 8$ ,  
 $m\angle HJK = 70^\circ$ , and  $m\angle IJH = 7x + 10$ .



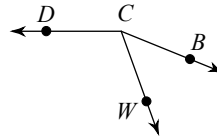
- 247)  $m\angle VUW = x + 60$ ,  $m\angle VUT = 132^\circ$ ,  
and  $m\angle WUT = x + 90$ . Find  $m\angle VUW$ .



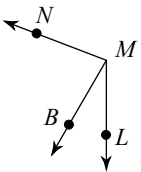
- 248)  $m\angle LVW = 133 + x$ ,  $m\angle UVL = x + 56$ ,  
and  $m\angle UVW = 173^\circ$ . Find  $m\angle UVL$ .



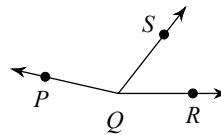
- 249)  $m\angle BCD = 78x + 2$ ,  $m\angle BCW = 25x - 2$ ,  
and  $m\angle WCD = 110^\circ$ . Find  $m\angle BCD$ .



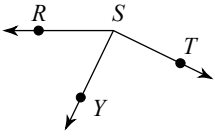
- 250)  $m\angle BMN = 9x + 9$ ,  $m\angle LMB = 30^\circ$ ,  
and  $m\angle LMN = 12x + 15$ . Find  $m\angle BMN$ .



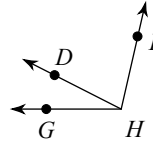
- 251)  $m\angle PQS = x + 127$ ,  $m\angle SQR = x + 64$ ,  
and  $m\angle PQR = 167^\circ$ . Find  $m\angle SQR$ .



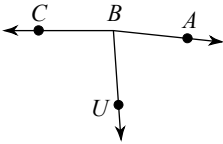
- 252) Find  $m\angle TSY$  if  $m\angle TSY = 9x - 9$ ,  
 $m\angle TSR = 15x - 11$ , and  $m\angle YSR = 64^\circ$ .



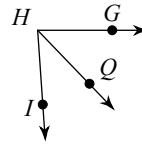
- 253)  $m\angle DHI = x + 80$ ,  $m\angle GHI = 103^\circ$ ,  
and  $m\angle GHD = x + 31$ . Find  $m\angle GHD$ .



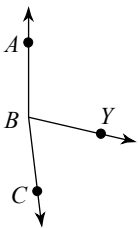
- 254)  $m\angle ABU = x + 84$ ,  $m\angle UBC = x + 98$ ,  
and  $m\angle ABC = 174^\circ$ . Find  $m\angle ABU$ .



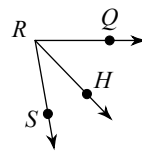
- 255) Find  $m\angle QHI$  if  $m\angle GHI = 86^\circ$ ,  
 $m\angle GHQ = 2x + 46$ , and  $m\angle QHI = x + 40$ .



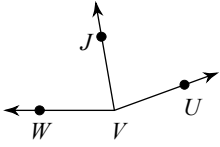
- 256)  $m\angle ABY = 25x + 3$ ,  $m\angle ABC = 173^\circ$ ,  
and  $m\angle YBC = 17x + 2$ . Find  $m\angle ABY$ .



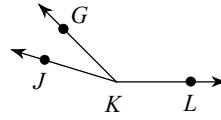
- 257) Find  $m\angle QRS$  if  $m\angle QRH = 10x - 4$ ,  
 $m\angle QRS = 15x + 5$ , and  $m\angle HRS = 34^\circ$ .



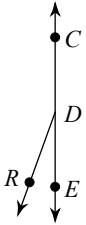
- 258)  $m\angle WVU = 6 + 22x$ ,  $m\angle JVU = 12x - 4$ ,  
and  $m\angle WVJ = 80^\circ$ . Find  $m\angle JVU$ .



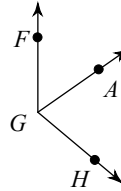
- 259) Find  $m\angle JKG$  if  $m\angle JKL = 163^\circ$ ,  
 $m\angle JKG = 3x + 4$ , and  $m\angle GKL = 17x - 1$ .



- 260)  $m\angle EDR = 6x - 4$ ,  $m\angle RDC = 160^\circ$ ,  
and  $m\angle EDC = 44x + 4$ . Find  $m\angle EDR$ .



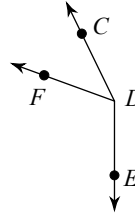
- 261) Find  $m\angle AGH$  if  $m\angle FGA = x + 61$ ,  
 $m\angle FGH = 130^\circ$ , and  $m\angle AGH = x + 81$ .



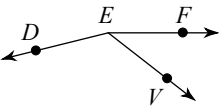
- 262) Find  $m\angle HGF$  if  $m\angle UGF = 160^\circ$ ,  
 $m\angle HGF = 180x$ , and  $m\angle HGU = 19x + 1$ .



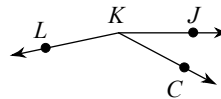
- 263) Find  $m\angle EDC$  if  $m\angle FDC = 5x + 9$ ,  
 $m\angle EDC = 21x + 7$ , and  $m\angle EDF = 110^\circ$ .



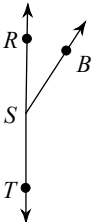
- 264)  $m\angle VED = 128^\circ$ ,  $m\angle FED = 17x - 4$ ,  
and  $m\angle FEV = 3x + 8$ . Find  $m\angle FED$ .



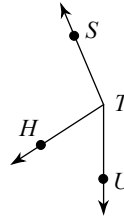
- 265)  $m\angle JKC = x + 36$ ,  $m\angle CKL = x + 148$ ,  
and  $m\angle JKL = 168^\circ$ . Find  $m\angle CKL$ .



- 266)  $m\angle RST = 179^\circ$ ,  $m\angle BST = 30x - 3$ ,  
and  $m\angle RSB = 6x + 2$ . Find  $m\angle RSB$ .

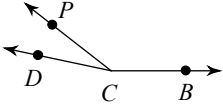


- 267)  $m\angle UTS = 157^\circ$ ,  $m\angle HTS = 17x - 2$ ,  
and  $m\angle UTH = 10x - 3$ . Find  $m\angle HTS$ .

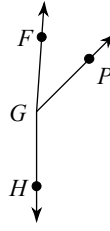




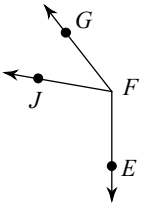
- 268) Find  $m\angle DCB$  if  $m\angle DCP = 5x + 6$ ,  
 $m\angle DCB = 42x$ , and  $m\angle PCB = 142^\circ$ .



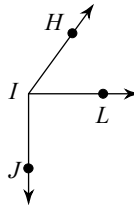
- 269)  $m\angle FGP = 41^\circ$ ,  $m\angle PGH = 2x + 135$ ,  
and  $m\angle FGH = x + 176$ . Find  $m\angle PGH$ .



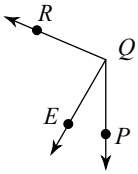
- 270) Find  $m\angle JFG$  if  $m\angle EFG = 142^\circ$ ,  
 $m\angle EFJ = x + 112$ , and  $m\angle JFG = x + 54$ .



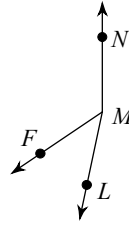
- 271)  $m\angle HIJ = 144^\circ$ ,  $m\angle HIL = x + 64$ ,  
and  $m\angle LIJ = x + 100$ . Find  $m\angle LIJ$ .



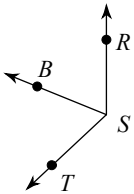
- 272)  $m\angle PQR = 56x + 1$ ,  $m\angle EQR = 83^\circ$ ,  
and  $m\angle PQE = 14x + 2$ . Find  $m\angle PQR$ .



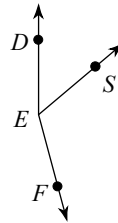
- 273) Find  $m\angle FMN$  if  $m\angle FMN = -8 + 12x$ ,  
 $m\angle LMF = 44^\circ$ , and  $m\angle LMN = 16x - 8$ .



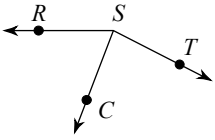
- 274) Find  $m\angle TSB$  if  $m\angle BSR = 68^\circ$ ,  
 $m\angle TSR = 1 + 33x$ , and  $m\angle TSB = 15x + 5$ .



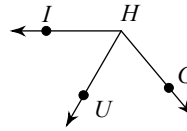
- 275)  $m\angle SEF = x + 115$ ,  $m\angle DES = 50^\circ$ ,  
and  $m\angle DEF = 2x + 165$ . Find  $m\angle SEF$ .



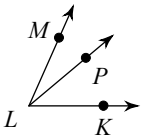
- 276) Find  $m\angle TSR$  if  $m\angle TSR = 1 + 76x$ ,  
 $m\angle TSC = 43x - 2$ , and  $m\angle CSR = 69^\circ$ .



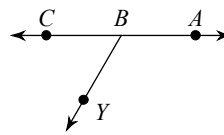
- 277) Find  $m\angle UHI$  if  $m\angle GHU = 70^\circ$ ,  
 $m\angle GHI = 14x + 4$ , and  $m\angle UHI = 6x + 6$ .



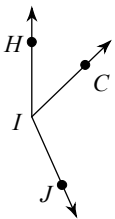
- 278) Find  $m\angle PLK$  if  $m\angle MLP = 3x + 5$ ,  
 $m\angle PLK = 4x + 12$ , and  $m\angle MLK = 66^\circ$ .



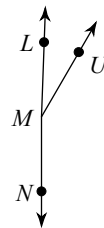
- 279) Find  $m\angle ABC$  if  $m\angle ABY = 120^\circ$ ,  
 $m\angle ABC = 30x$ , and  $m\angle YBC = 9x + 6$ .



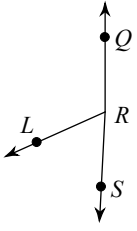
- 280) Find  $m\angle CIJ$  if  $m\angle HIJ = 156^\circ$ ,  
 $m\angle CIJ = 114 + x$ , and  $m\angle HIC = x + 50$ .



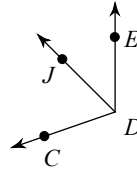
- 281) Find  $m\angle LMU$  if  $m\angle LMU = 34 + x$ ,  
 $m\angle LMN = 178^\circ$ , and  $m\angle UMN = x + 156$ .



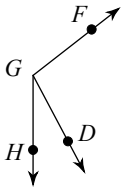
- 282)  $m\angle SRQ = 26x - 5$ ,  $m\angle LRQ = 114^\circ$ ,  
and  $m\angle SRL = 9x$ . Find  $m\angle SRQ$ .



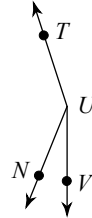
- 283) Find  $m\angle JDE$  if  $m\angle CDJ = x + 70$ ,  
 $m\angle JDE = x + 51$ , and  $m\angle CDE = 109^\circ$ .



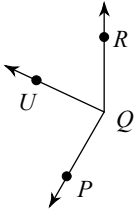
- 284) Find  $m\angle FGD$  if  $m\angle FGD = x + 104$ ,  
 $m\angle FGH = 128^\circ$ , and  $m\angle DGH = x + 32$ .



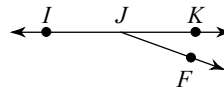
- 285) Find  $m\angle VUT$  if  $m\angle NUT = 16x + 12$ ,  
 $m\angle VUT = 20x + 2$ , and  $m\angle VUN = 22^\circ$ .



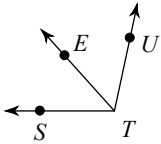
- 286) Find  $m\angle PQU$  if  $m\angle UQR = 8x + 1$ ,  
 $m\angle PQR = 150^\circ$ , and  $m\angle PQU = 11x - 3$ .



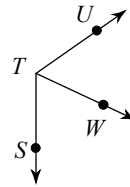
- 287) Find  $m\angle KJF$  if  $m\angle FJI = x + 164$ ,  
 $m\angle KJF = x + 24$ , and  $m\angle KJI = 180^\circ$ .



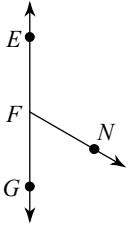
- 288) Find  $m\angle ETU$  if  $m\angle STU = 102^\circ$ ,  
 $m\angle ETU = x + 64$ , and  $m\angle STE = x + 58$ .



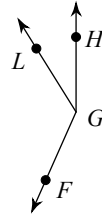
- 289)  $m\angle WTS = 65^\circ$ ,  $m\angle UTW = 5x + 10$ ,  
and  $m\angle UTS = 11x + 15$ . Find  $m\angle UTS$ .



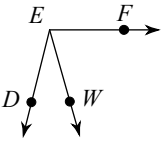
- 290)  $m\angle NFG = 70 + x$ ,  $m\angle EFN = x + 130$ ,  
and  $m\angle EFG = 180^\circ$ . Find  $m\angle EFN$ .



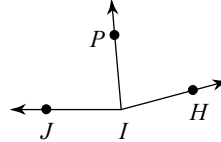
- 291) Find  $m\angle FGH$  if  $m\angle FGL = 9x + 16$ ,  
 $m\angle LGH = 32^\circ$ , and  $m\angle FGH = 13x$ .



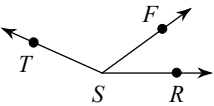
- 292)  $m\angle FED = 104^\circ$ ,  $m\angle FEW = x + 76$ ,  
and  $m\angle WED = x + 32$ . Find  $m\angle WED$ .



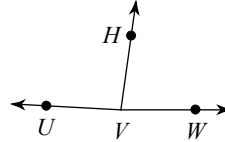
- 293) Find  $m\angle JIP$  if  $m\angle JIH = 165^\circ$ ,  
 $m\angle JIP = x + 91$ , and  $m\angle PIH = x + 86$ .



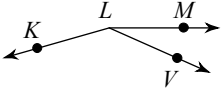
- 294) Find  $m\angle TSR$  if  $m\angle TSR = 38x + 4$ ,  
 $m\angle FSR = 10x - 4$ , and  $m\angle TSF = 120^\circ$ .



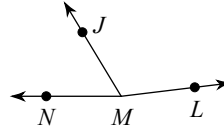
- 295)  $m\angle HVW = 13x + 4$ ,  $m\angle UVW = 28x + 9$ ,  
and  $m\angle UVH = 95^\circ$ . Find  $m\angle UVW$ .



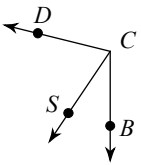
- 296)  $m\angle MLV = 13x - 2$ ,  $m\angle MLK = 81x + 2$ ,  
and  $m\angle VLK = 140^\circ$ . Find  $m\angle MLK$ .



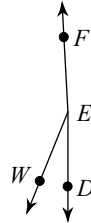
- 297) Find  $m\angle JML$  if  $m\angle NML = 13x + 17$ ,  
 $m\angle JML = 8x + 18$ , and  $m\angle NMJ = 59^\circ$ .



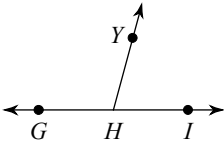
- 298)  $m\angle SCD = 10x + 10$ ,  $m\angle BCD = 104^\circ$ ,  
and  $m\angle BCS = 5x + 4$ . Find  $m\angle BCS$ .



- 299)  $m\angle WEF = 17x + 2$ ,  $m\angle DEF = 177^\circ$ ,  
and  $m\angle DEW = 2x + 4$ . Find  $m\angle DEW$ .



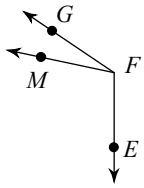
- 300) Find  $m\angle GHI$  if  $m\angle YHI = 75^\circ$ ,  
 $m\angle GHI = 15x + 15$ , and  $m\angle GHY = 9x + 6$ .



## Vectors - Measurement of angles

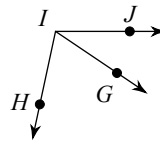
### Find measurement between vectors

- 1) Find  $m\angle EFM$  if  $m\angle MFG = 22^\circ$   
and  $m\angle EFG = 124^\circ$ .



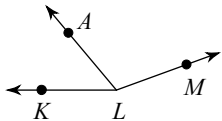
$102^\circ$

- 2) Find  $m\angle JIH$  if  $m\angle JIG = 34^\circ$   
and  $m\angle GIH = 68^\circ$ .



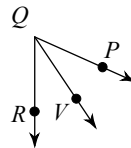
$102^\circ$

- 3)  $m\angle KLA = 50^\circ$  and  $m\angle KLM = 160^\circ$ .  
Find  $m\angle ALM$ .



$110^\circ$

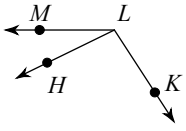
- 4) Find  $m\angle VQR$  if  $m\angle PQR = 66^\circ$   
and  $m\angle PQV = 32^\circ$ .



$34^\circ$

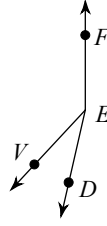


- 5)  $m\angle KLH = 97^\circ$  and  $m\angle HLM = 26^\circ$ .  
Find  $m\angle KLM$ .



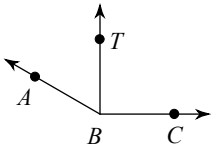
123°

- 6)  $m\angle VEF = 137^\circ$  and  $m\angle DEV = 30^\circ$ .  
Find  $m\angle DEF$ .



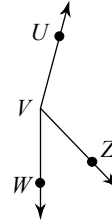
167°

- 7) Find  $m\angle TBC$  if  $m\angle ABT = 60^\circ$   
and  $m\angle ABC = 150^\circ$ .



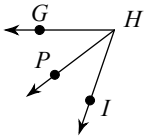
90°

- 8)  $m\angle UVZ = 121^\circ$  and  $m\angle ZVW = 44^\circ$ .  
Find  $m\angle UVW$ .



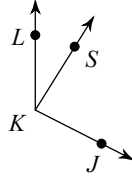
165°

- 9)  $m\angle PHG = 37^\circ$  and  $m\angle IHP = 34^\circ$ .  
Find  $m\angle IHG$ .



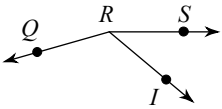
$71^\circ$

- 10)  $m\angle LKS = 32^\circ$  and  $m\angle LKJ = 117^\circ$ .  
Find  $m\angle SKJ$ .



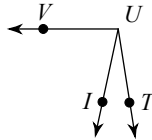
$85^\circ$

- 11) Find  $m\angle IRQ$  if  $m\angle SRI = 40^\circ$   
and  $m\angle SRQ = 164^\circ$ .



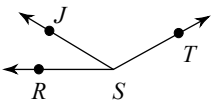
$124^\circ$

- 12)  $m\angle TUI = 21^\circ$  and  $m\angle IUV = 78^\circ$ .  
Find  $m\angle TUV$ .



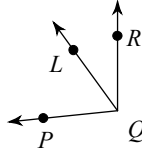
$99^\circ$

- 13) Find  $m\angle RSJ$  if  $m\angle RST = 151^\circ$   
and  $m\angle JST = 120^\circ$ .



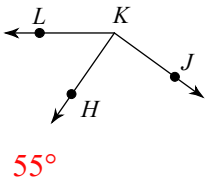
$31^\circ$

- 14)  $m\angle LQR = 36^\circ$  and  $m\angle PQL = 60^\circ$ .  
Find  $m\angle PQR$ .

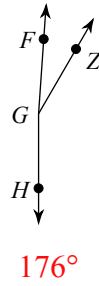


$96^\circ$

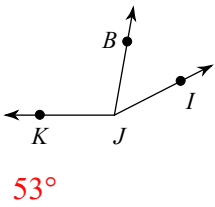
- 15)  $m\angle JKL = 144^\circ$  and  $m\angle JKH = 89^\circ$ .  
Find  $m\angle HKL$ .



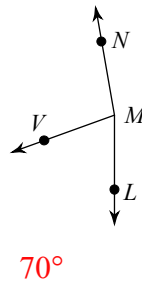
- 16)  $m\angle ZGH = 150^\circ$  and  $m\angle FGZ = 26^\circ$ .  
Find  $m\angle FGH$ .



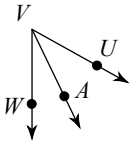
- 17)  $m\angle KJB = 100^\circ$  and  $m\angle KJI = 153^\circ$ .  
Find  $m\angle BJI$ .



- 18)  $m\angle LMN = 170^\circ$  and  $m\angle VMN = 100^\circ$ .  
Find  $m\angle LMV$ .

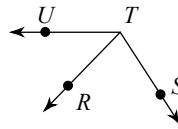


- 19)  $m\angle AVW = 26^\circ$  and  $m\angle UVA = 35^\circ$ .  
Find  $m\angle UVW$ .



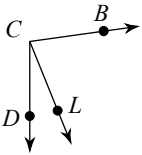
$61^\circ$

- 20) Find  $m\angle STU$  if  $m\angle RTU = 46^\circ$   
and  $m\angle STR = 77^\circ$ .



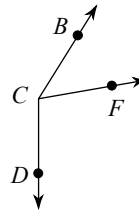
$123^\circ$

- 21) Find  $m\angle BCD$  if  $m\angle BCL = 76^\circ$   
and  $m\angle LCD = 22^\circ$ .



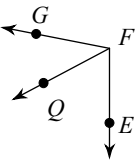
$98^\circ$

- 22)  $m\angle FCD = 100^\circ$  and  $m\angle BCF = 48^\circ$ .  
Find  $m\angle BCD$ .



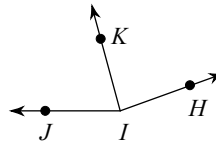
$148^\circ$

- 23) Find  $m\angle EFG$  if  $m\angle QFG = 39^\circ$   
and  $m\angle EFQ = 62^\circ$ .



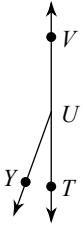
$101^\circ$

- 24) Find  $m\angle JIK$  if  $m\angle JIH = 160^\circ$   
and  $m\angle KIH = 85^\circ$ .



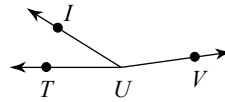
$75^\circ$

- 25) Find  $m\angle YUV$  if  $m\angle TUY = 20^\circ$   
and  $m\angle TUV = 180^\circ$ .



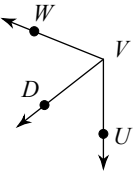
$160^\circ$

- 26) Find  $m\angle TUV$  if  $m\angle TUI = 32^\circ$   
and  $m\angle IUV = 140^\circ$ .



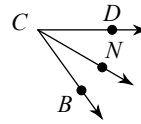
$172^\circ$

- 27) Find  $m\angle UVD$  if  $m\angle DVW = 60^\circ$   
and  $m\angle UVW = 112^\circ$ .



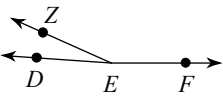
$52^\circ$

- 28) Find  $m\angle NCB$  if  $m\angle DCN = 30^\circ$   
and  $m\angle DCB = 54^\circ$ .



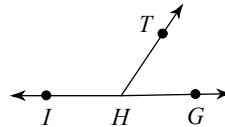
$24^\circ$

- 29)  $m\angle ZEF = 156^\circ$  and  $m\angle DEZ = 20^\circ$ .  
Find  $m\angle DEF$ .



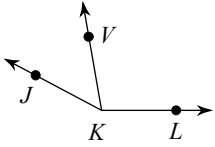
$176^\circ$

- 30) Find  $m\angle IHT$  if  $m\angle IHG = 179^\circ$   
and  $m\angle THG = 55^\circ$ .



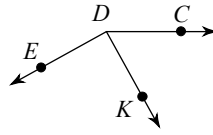
$124^\circ$

- 31) Find  $m\angle JKV$  if  $m\angle VKL = 100^\circ$   
and  $m\angle JKL = 152^\circ$ .



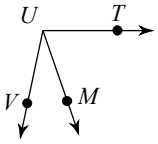
$52^\circ$

- 32)  $m\angle KDE = 90^\circ$  and  $m\angle CDE = 151^\circ$ .  
Find  $m\angle CDK$ .



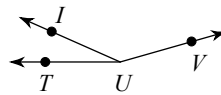
$61^\circ$

- 33)  $m\angle TUV = 102^\circ$  and  $m\angle MUV = 31^\circ$ .  
Find  $m\angle TUM$ .



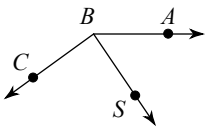
$71^\circ$

- 34) Find  $m\angle TUI$  if  $m\angle TUV = 164^\circ$   
and  $m\angle IUV = 140^\circ$ .



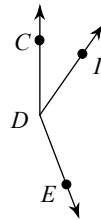
$24^\circ$

- 35)  $m\angle ABS = 56^\circ$  and  $m\angle ABC = 144^\circ$ .  
Find  $m\angle SBC$ .



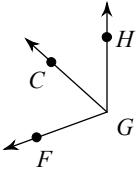
$88^\circ$

- 36) Find  $m\angle IDE$  if  $m\angle CDE = 159^\circ$   
and  $m\angle CDI = 35^\circ$ .



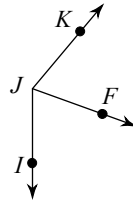
$124^\circ$

- 37)  $m\angle CGH = 48^\circ$  and  $m\angle FGH = 110^\circ$ .  
Find  $m\angle FGC$ .



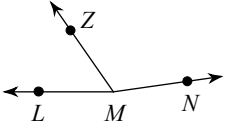
$62^\circ$

- 38) Find  $m\angle KJF$  if  $m\angle FJI = 70^\circ$   
and  $m\angle KJI = 140^\circ$ .



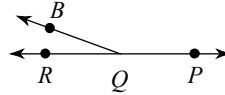
$70^\circ$

- 39)  $m\angle LMN = 172^\circ$  and  $m\angle LMZ = 55^\circ$ .  
Find  $m\angle ZMN$ .



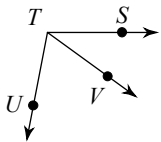
$117^\circ$

- 40) Find  $m\angle RQB$  if  $m\angle BQP = 160^\circ$   
and  $m\angle RQP = 180^\circ$ .



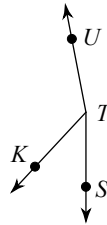
$20^\circ$

- 41)  $m\angle STU = 101^\circ$  and  $m\angle VTU = 65^\circ$ .  
Find  $m\angle STV$ .



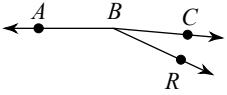
$36^\circ$

- 42)  $m\angle KTU = 126^\circ$  and  $m\angle STU = 169^\circ$ .  
Find  $m\angle STK$ .



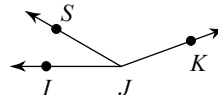
$43^\circ$

- 43)  $m\angle CBR = 20^\circ$  and  $m\angle CBA = 175^\circ$ .  
Find  $m\angle RBA$ .



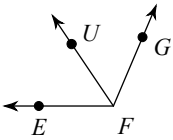
155°

- 44) Find  $m\angle IJK$  if  $m\angle SJK = 130^\circ$   
and  $m\angle IJS = 30^\circ$ .



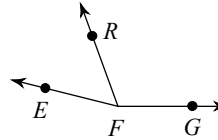
160°

- 45) Find  $m\angle EFU$  if  $m\angle EFG = 113^\circ$   
and  $m\angle UFG = 57^\circ$ .



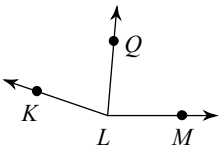
56°

- 46)  $m\angle EFR = 56^\circ$  and  $m\angle RFG = 110^\circ$ .  
Find  $m\angle EFG$ .



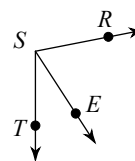
166°

- 47) Find  $m\angle QLM$  if  $m\angle KLQ = 76^\circ$   
and  $m\angle KLM = 161^\circ$ .



85°

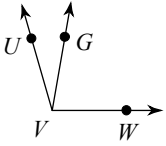
- 48) Find  $m\angle RSE$  if  $m\angle RST = 101^\circ$   
and  $m\angle EST = 33^\circ$ .



68°

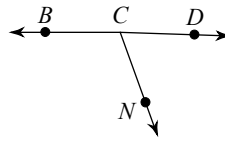


- 49)  $m\angle UVG = 26^\circ$  and  $m\angle UVW = 106^\circ$ .  
Find  $m\angle GVW$ .



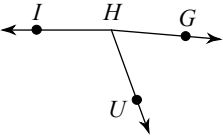
$80^\circ$

- 50)  $m\angle DCB = 178^\circ$  and  $m\angle DCN = 68^\circ$ .  
Find  $m\angle NCB$ .



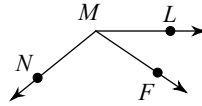
$110^\circ$

- 51)  $m\angle UHI = 110^\circ$  and  $m\angle GHU = 65^\circ$ .  
Find  $m\angle GHI$ .



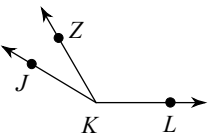
$175^\circ$

- 52)  $m\angle FMN = 107^\circ$  and  $m\angle LMF = 34^\circ$ .  
Find  $m\angle LMN$ .



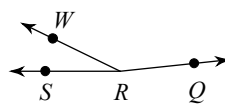
$141^\circ$

- 53)  $m\angle JKZ = 29^\circ$  and  $m\angle JKL = 149^\circ$ .  
Find  $m\angle ZKL$ .



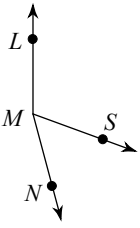
$120^\circ$

- 54)  $m\angle WRQ = 148^\circ$  and  $m\angle SRW = 26^\circ$ .  
Find  $m\angle SRQ$ .



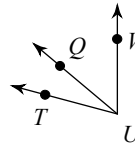
$174^\circ$

- 55) Find  $m\angle SMN$  if  $m\angle LMN = 165^\circ$   
and  $m\angle LMS = 110^\circ$ .



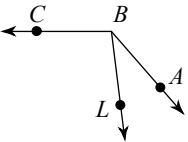
$55^\circ$

- 56) Find  $m\angle QUV$  if  $m\angle TUQ = 25^\circ$   
and  $m\angle TUV = 75^\circ$ .



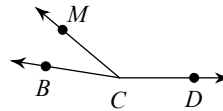
$50^\circ$

- 57)  $m\angle ABC = 131^\circ$  and  $m\angle ABL = 34^\circ$ .  
Find  $m\angle LBC$ .



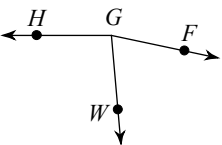
$97^\circ$

- 58)  $m\angle BCM = 31^\circ$  and  $m\angle MCD = 140^\circ$ .  
Find  $m\angle BCD$ .



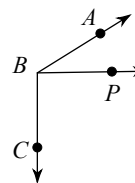
$171^\circ$

- 59)  $m\angle FGH = 168^\circ$  and  $m\angle FGW = 73^\circ$ .  
Find  $m\angle WGH$ .



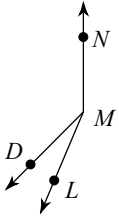
$95^\circ$

- 60)  $m\angle ABP = 31^\circ$  and  $m\angle ABC = 122^\circ$ .  
Find  $m\angle PBC$ .



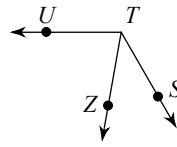
$91^\circ$

- 61) Find  $m\angle LMN$  if  $m\angle DMN = 135^\circ$   
and  $m\angle LMD = 22^\circ$ .



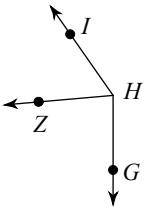
$157^\circ$

- 62) Find  $m\angle ZTU$  if  $m\angle STZ = 40^\circ$   
and  $m\angle STU = 120^\circ$ .



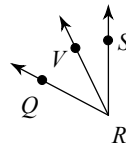
$80^\circ$

- 63) Find  $m\angle GHI$  if  $m\angle ZHI = 60^\circ$   
and  $m\angle GHZ = 85^\circ$ .



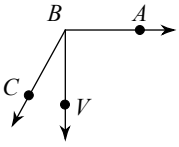
$145^\circ$

- 64) Find  $m\angle QRS$  if  $m\angle QRV = 36^\circ$   
and  $m\angle VRS = 26^\circ$ .



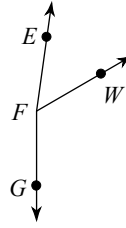
$62^\circ$

- 65)  $m\angle VBC = 29^\circ$  and  $m\angle ABV = 90^\circ$ .  
Find  $m\angle ABC$ .



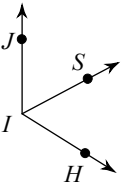
$119^\circ$

- 66)  $m\angle EFG = 172^\circ$  and  $m\angle WFG = 120^\circ$ .  
Find  $m\angle EFW$ .



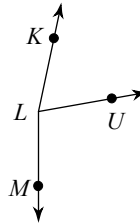
$52^\circ$

- 67)  $m\angle JIH = 122^\circ$  and  $m\angle JIS = 62^\circ$ .  
Find  $m\angle SIH$ .



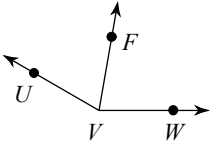
$60^\circ$

- 68)  $m\angle ULM = 100^\circ$  and  $m\angle KLU = 68^\circ$ .  
Find  $m\angle KLM$ .



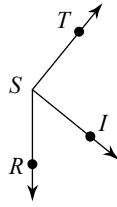
$168^\circ$

- 69)  $m\angle UVW = 150^\circ$  and  $m\angle FVW = 80^\circ$ .  
Find  $m\angle UVF$ .



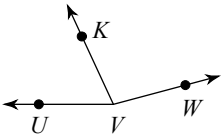
$70^\circ$

- 70) Find  $m\angle ISR$  if  $m\angle TSI = 90^\circ$   
and  $m\angle TSR = 141^\circ$ .



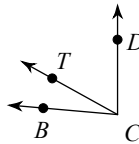
$51^\circ$

- 71) Find  $m\angle UVK$  if  $m\angle UVW = 165^\circ$   
and  $m\angle KVW = 100^\circ$ .



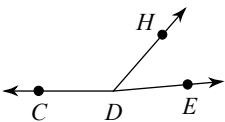
$65^\circ$

- 72) Find  $m\angle BCD$  if  $m\angle TCD = 61^\circ$   
and  $m\angle BCT = 24^\circ$ .



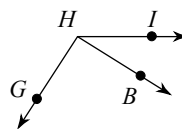
$85^\circ$

- 73) Find  $m\angle CDE$  if  $m\angle HDE = 44^\circ$   
and  $m\angle CDH = 131^\circ$ .



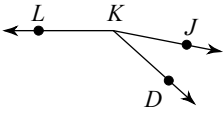
$175^\circ$

- 74)  $m\angle BHG = 91^\circ$  and  $m\angle IHG = 123^\circ$ .  
Find  $m\angle IHB$ .



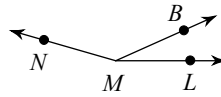
$32^\circ$

- 75)  $m\angle JKD = 31^\circ$  and  $m\angle DKL = 138^\circ$ .  
Find  $m\angle JKL$ .



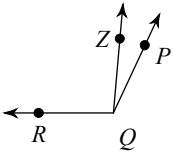
169°

- 76)  $m\angle NMB = 140^\circ$  and  $m\angle NML = 164^\circ$ .  
Find  $m\angle BML$ .



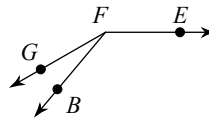
24°

- 77) Find  $m\angle RQZ$  if  $m\angle RQP = 115^\circ$   
and  $m\angle ZQP = 20^\circ$ .



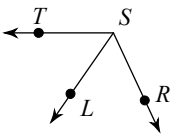
95°

- 78)  $m\angle EFG = 150^\circ$  and  $m\angle BFG = 20^\circ$ .  
Find  $m\angle EFB$ .



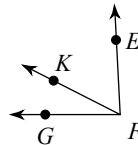
130°

- 79)  $m\angle LST = 55^\circ$  and  $m\angle RSL = 60^\circ$ .  
Find  $m\angle RST$ .



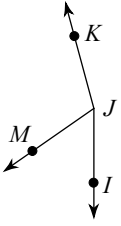
115°

- 80)  $m\angle KFE = 60^\circ$  and  $m\angle GFE = 87^\circ$ .  
Find  $m\angle GFK$ .



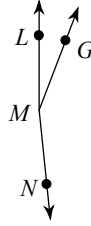
27°

- 81) Find  $m\angle IJK$  if  $m\angle IJM = 55^\circ$   
and  $m\angle MJK = 110^\circ$ .



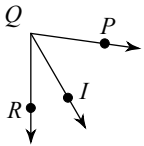
$165^\circ$

- 82)  $m\angle GMN = 153^\circ$  and  $m\angle LMG = 21^\circ$ .  
Find  $m\angle LMN$ .



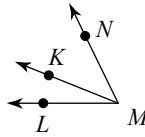
$174^\circ$

- 83) Find  $m\angle PQR$  if  $m\angle PQI = 52^\circ$   
and  $m\angle IQR = 30^\circ$ .



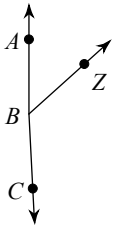
$82^\circ$

- 84)  $m\angle KMN = 42^\circ$  and  $m\angle LMK = 22^\circ$ .  
Find  $m\angle LMN$ .



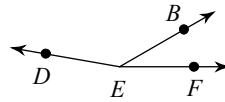
$64^\circ$

- 85) Find  $m\angle ABZ$  if  $m\angle ABC = 177^\circ$   
and  $m\angle ZBC = 129^\circ$ .



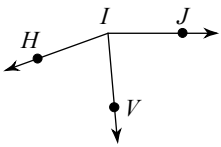
$48^\circ$

- 86) Find  $m\angle DEB$  if  $m\angle BEF = 30^\circ$   
and  $m\angle DEF = 170^\circ$ .



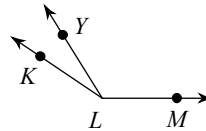
$140^\circ$

- 87)  $m\angle JIV = 85^\circ$  and  $m\angle VIH = 75^\circ$ .  
Find  $m\angle JIH$ .



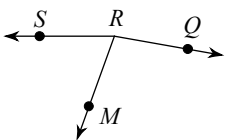
$160^\circ$

- 88) Find  $m\angle YLM$  if  $m\angle KLY = 24^\circ$   
and  $m\angle KLM = 146^\circ$ .



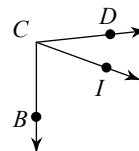
$122^\circ$

- 89) Find  $m\angle QRM$  if  $m\angle QRS = 170^\circ$   
and  $m\angle MRS = 70^\circ$ .



$100^\circ$

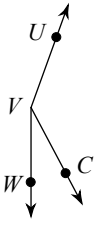
- 90)  $m\angle ICB = 70^\circ$  and  $m\angle DCB = 96^\circ$ .  
Find  $m\angle DCI$ .



$26^\circ$

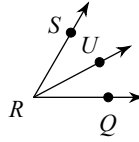


- 91) Find  $m\angle UVC$  if  $m\angle CVW = 28^\circ$   
and  $m\angle UVW = 160^\circ$ .



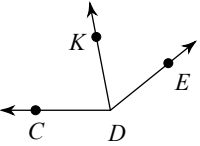
$132^\circ$

- 92)  $m\angle SRQ = 60^\circ$  and  $m\angle URQ = 28^\circ$ .  
Find  $m\angle SRU$ .



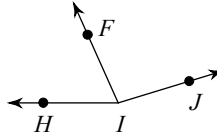
$32^\circ$

- 93) Find  $m\angle CDK$  if  $m\angle CDE = 141^\circ$   
and  $m\angle KDE = 62^\circ$ .



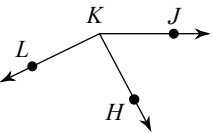
$79^\circ$

- 94) Find  $m\angle FIJ$  if  $m\angle HIF = 66^\circ$   
and  $m\angle HIJ = 163^\circ$ .



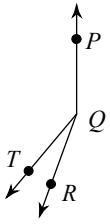
$97^\circ$

- 95) Find  $m\angle HKL$  if  $m\angle JKL = 154^\circ$   
and  $m\angle JKH = 62^\circ$ .



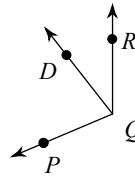
$92^\circ$

- 96) Find  $m\angle RQP$  if  $m\angle TQP = 140^\circ$   
and  $m\angle RQT = 20^\circ$ .



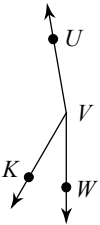
$160^\circ$

- 97) Find  $m\angle PQR$  if  $m\angle DQR = 38^\circ$   
and  $m\angle PQD = 75^\circ$ .



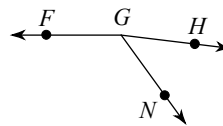
$113^\circ$

- 98) Find  $m\angle KVU$  if  $m\angle WVK = 30^\circ$   
and  $m\angle WVU = 170^\circ$ .



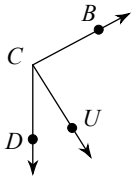
$140^\circ$

- 99) Find  $m\angle NGF$  if  $m\angle HGN = 47^\circ$   
and  $m\angle HGF = 173^\circ$ .



$126^\circ$

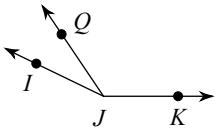
- 100)  $m\angle BCD = 118^\circ$  and  $m\angle UCD = 32^\circ$ .  
Find  $m\angle BCU$ .



86°

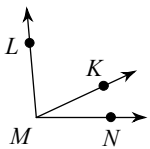
**Find the unknown**

- 101) Find  $x$  if  $m\angle IJK = 154^\circ$ ,  
 $m\angle QJK = 125x - 1$ , and  $m\angle IJQ = 29x + 1$ .



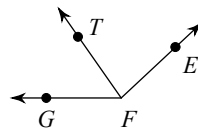
1

- 102)  $m\angle KMN = x + 16$ ,  $m\angle LMN = 95^\circ$ ,  
and  $m\angle LMK = 6x + 16$ . Find  $x$ .



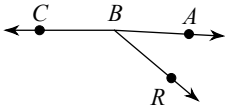
9

- 103)  $m\angle GFE = 137^\circ$ ,  $m\angle GFT = 54x + 1$ ,  
and  $m\angle TFE = 82x$ . Find  $x$ .



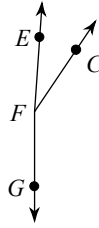
1

- 104) Find  $x$  if  $m\angle ABC = 177^\circ$ ,  
 $m\angle RBC = 14 + 14x$ , and  $m\angle ABR = 4x + 1$ .



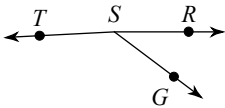
9

- 105) Find  $x$  if  $m\angle CFG = 19x - 6$ ,  
 $m\angle EFG = 176^\circ$ , and  $m\angle EFC = 2x + 14$ .



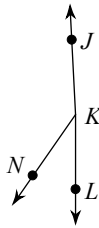
8

- 106)  $m\angle GST = 21x - 7$ ,  $m\angle RSG = 37^\circ$ ,  
and  $m\angle RST = 9 + 24x$ . Find  $x$ .



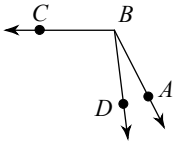
7

- 107) Find  $x$  if  $m\angle NKJ = 11x + 10$ ,  
 $m\angle LKJ = 177^\circ$ , and  $m\angle LKN = x + 23$ .



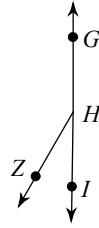
12

- 108)  $m\angle DBC = -7 + 13x$ ,  $m\angle ABD = x + 12$ ,  
and  $m\angle ABC = 117^\circ$ . Find  $x$ .



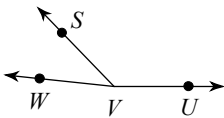
8

- 109) Find  $x$  if  $m\angle IHZ = x + 31$ ,  $m\angle IHG = 179^\circ$ ,  
and  $m\angle ZHG = x + 152$ .



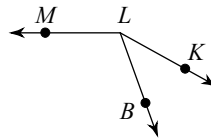
-2

- 110) Find  $x$  if  $m\angle WVU = 20x - 6$ ,  
 $m\angle WVS = 40^\circ$ , and  $m\angle SVU = 15x - 1$ .



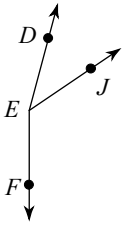
9

- 111)  $m\angle KLM = 16x + 7$ ,  $m\angle KLB = 41^\circ$ ,  
and  $m\angle BLM = 11x + 11$ . Find  $x$ .



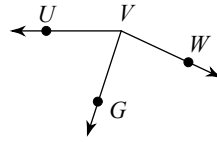
9

- 112)  $m\angle DEF = 11 + 22x$ ,  $m\angle DEJ = 41^\circ$ ,  
and  $m\angle JEF = 17x + 5$ . Find  $x$ .



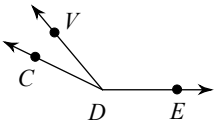
7

- 113)  $m\angle GVU = 73x - 1$ ,  $m\angle WVG = 83^\circ$ ,  
and  $m\angle WVU = 156x - 1$ . Find  $x$ .



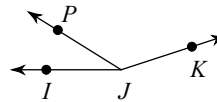
1

- 114)  $m\angle CDV = 9x - 3$ ,  $m\angle CDE = 50x + 4$ ,  
and  $m\angle VDE = 130^\circ$ . Find  $x$ .



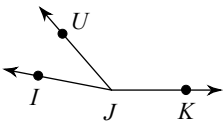
3

- 115)  $m\angle IJP = x + 42$ ,  $m\angle PJK = x + 140$ ,  
and  $m\angle IJK = 162^\circ$ . Find  $x$ .



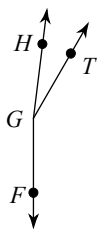
-10

- 116)  $m\angle IJU = 3x + 8$ ,  $m\angle IJK = 15x + 19$ ,  
and  $m\angle UJK = 131^\circ$ . Find  $x$ .



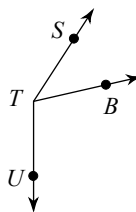
10

- 117) Find  $x$  if  $m\angle HGT = x + 24$ ,  
 $m\angle TGF = x + 151$ , and  $m\angle HGF = 173^\circ$ .



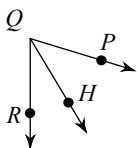
-1

- 118)  $m\angle STB = 44^\circ$ ,  $m\angle BTU = 33x + 4$ ,  
and  $m\angle STU = 50x - 3$ . Find  $x$ .



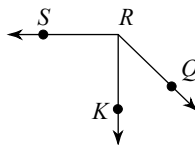
3

- 119)  $m\angle PQR = 7x + 10$ ,  $m\angle PQH = 42^\circ$ ,  
and  $m\angle HQR = 3x + 4$ . Find  $x$ .



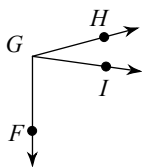
9

- 120)  $m\angle QRS = 18x + 10$ ,  $m\angle KRS = 12x + 6$ ,  
and  $m\angle QRK = 46^\circ$ . Find  $x$ .



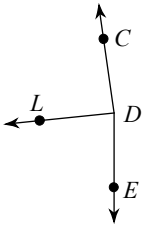
7

- 121)  $m\angle IGF = 21x - 2$ ,  $m\angle HGF = 25x + 5$ ,  
and  $m\angle HGI = 23^\circ$ . Find  $x$ .



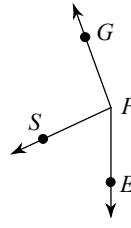
4

- 122) Find  $x$  if  $m\angle EDL = 8x - 4$ ,  $m\angle LDC = 88^\circ$ ,  
and  $m\angle EDC = 15x + 7$ .



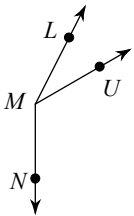
11

- 123)  $m\angle SFG = 12x - 1$ ,  $m\angle EFS = 65^\circ$ ,  
and  $m\angle EFG = 8 + 19x$ . Find  $x$ .



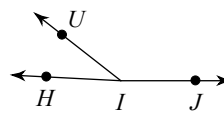
8

- 124)  $m\angle LMN = 15x + 3$ ,  $m\angle UMN = 120^\circ$ ,  
and  $m\angle LMU = 2x + 13$ . Find  $x$ .



10

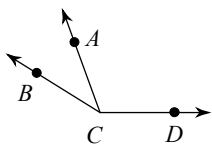
- 125)  $m\angle HIU = 35^\circ$ ,  $m\angle HIJ = 16x + 17$ ,  
and  $m\angle UIJ = 15x - 8$ . Find  $x$ .



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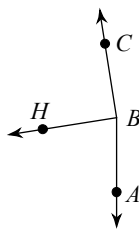


- 126) Find  $x$  if  $m\angle ACD = x + 113$ ,  
 $m\angle BCD = 148^\circ$ , and  $m\angle BCA = x + 41$ .



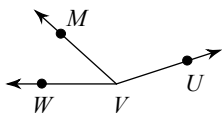
-3

- 127)  $m\angle ABH = 81^\circ$ ,  $m\angle HBC = 2x + 90$ ,  
and  $m\angle ABC = x + 171$ . Find  $x$ .



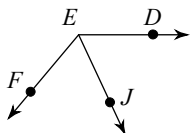
0

- 128)  $m\angle MVU = x + 121$ ,  $m\angle WVU = 162^\circ$ ,  
and  $m\angle WVM = x + 43$ . Find  $x$ .



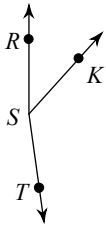
-1

- 129) Find  $x$  if  $m\angle DEJ = 65^\circ$ ,  $m\angle JEF = -1 + 33x$ ,  
and  $m\angle DEF = 2 + 64x$ .



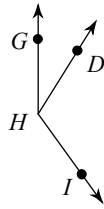
2

- 130)  $m\angle KST = 9x + 22$ ,  $m\angle RST = 14x + 4$ ,  
and  $m\angle RSK = 42^\circ$ . Find  $x$ .



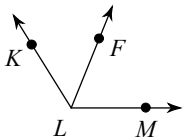
12

- 131) Find  $x$  if  $m\angle GHI = 144^\circ$ ,  
 $m\angle DHI = 29x - 4$ , and  $m\angle GHD = 7x + 4$ .



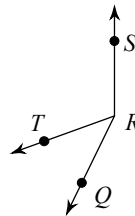
4

- 132) Find  $x$  if  $m\angle FLM = 68^\circ$ ,  $m\angle KLF = 9x + 9$ ,  
and  $m\angle KLM = 7 + 23x$ .



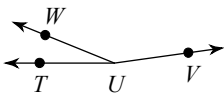
5

- 133) Find  $x$  if  $m\angle QRS = 17x + 1$ ,  
 $m\angle QRT = 4x + 8$ , and  $m\angle TRS = 110^\circ$ .



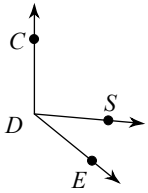
9

- 134)  $m\angle TUV = 16x - 4$ ,  $m\angle WUV = 12x + 18$ ,  
and  $m\angle TUW = 22^\circ$ . Find  $x$ .



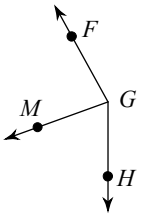
11

- 135) Find  $x$  if  $m\angle CDS = x + 99$ ,  $m\angle CDE = 129^\circ$ ,  
and  $m\angle SDE = x + 38$ .



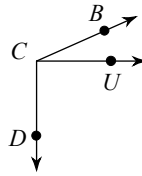
-4

- 136)  $m\angle MGF = 83 + x$ ,  $m\angle HGM = x + 72$ ,  
and  $m\angle HGF = 151^\circ$ . Find  $x$ .



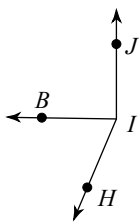
-2

- 137) Find  $x$  if  $m\angle UCD = 90^\circ$ ,  $m\angle BCU = 4x$ ,  
and  $m\angle BCD = 19x$ .



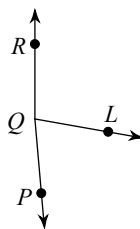
6

- 138)  $m\angle HIB = 2 + 22x$ ,  $m\angle BIJ = 29x + 2$ ,  
and  $m\angle HIJ = 157^\circ$ . Find  $x$ .



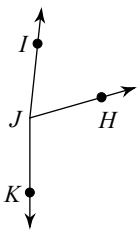
3

- 139)  $m\angle RQL = 34x - 2$ ,  $m\angle RQP = 58x + 1$ ,  
and  $m\angle LQP = 75^\circ$ . Find  $x$ .



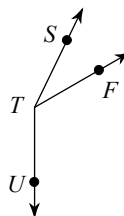
3

- 140) Find  $x$  if  $m\angle IJK = 174x$ ,  $m\angle HJK = 106^\circ$ ,  
and  $m\angle IJH = 68x$ .



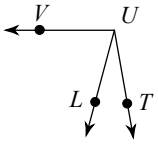
1

- 141)  $m\angle STU = 4 + 30x$ ,  $m\angle STF = 34^\circ$ ,  
and  $m\angle FTU = 24x$ . Find  $x$ .



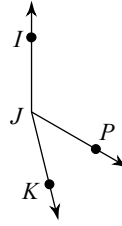
5

- 142)  $m\angle LUV = 12x + 3$ ,  $m\angle TUL = 4x + 1$ ,  
and  $m\angle TUV = 100^\circ$ . Find  $x$ .



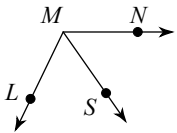
6

- 143)  $m\angle IJK = 16x - 10$ ,  $m\angle IJP = 120^\circ$ ,  
and  $m\angle PJK = 4x + 2$ . Find  $x$ .



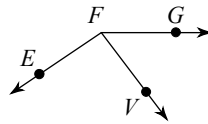
11

- 144)  $m\angle NML = 116^\circ$ ,  $m\angle NMS = x + 60$ ,  
and  $m\angle SML = x + 66$ . Find  $x$ .



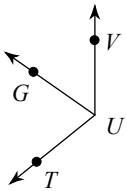
-5

- 145)  $m\angle VFE = 93^\circ$ ,  $m\angle GFE = 13x + 3$ ,  
and  $m\angle GFV = 3x + 20$ . Find  $x$ .



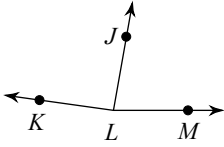
11

- 146) Find  $x$  if  $m\angle TUV = 22x - 3$ ,  $m\angle TUG = 74^\circ$ ,  
and  $m\angle GUV = 8x + 7$ .



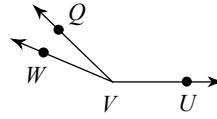
6

- 147)  $m\angle KLM = 172^\circ$ ,  $m\angle KLJ = x + 100$ ,  
and  $m\angle JLM = x + 88$ . Find  $x$ .



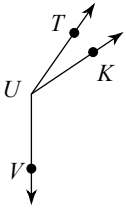
-8

- 148)  $m\angle QVU = 136^\circ$ ,  $m\angle WVU = 157x$ ,  
and  $m\angle WVQ = 20x + 1$ . Find  $x$ .



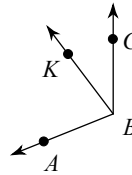
1

- 149)  $m\angle KUV = 124^\circ$ ,  $m\angle TUV = 29x$ ,  
and  $m\angle TUK = 5x - 4$ . Find  $x$ .



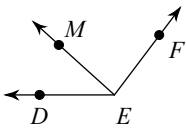
5

- 150)  $m\angle ABC = 112^\circ$ ,  $m\angle KBC = 17x + 3$ ,  
and  $m\angle ABK = 37x + 1$ . Find  $x$ .



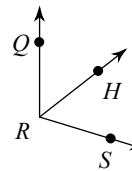
2

- 151)  $m\angle MEF = 21x + 1$ ,  $m\angle DEF = 30x + 7$ ,  
and  $m\angle DEM = 42^\circ$ . Find  $x$ .



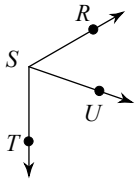
4

- 152) Find  $x$  if  $m\angle QRS = 15x + 2$ ,  $m\angle HRS = 55^\circ$ ,  
and  $m\angle QRH = 8x - 4$ .



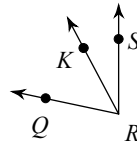
7

- 153)  $m\angle UST = 7x + 8$ ,  $m\angle RST = 120^\circ$ ,  
and  $m\angle RSU = 4x + 13$ . Find  $x$ .



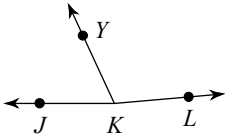
9

- 154)  $m\angle QRS = 19x + 2$ ,  $m\angle KRS = 6x + 4$ ,  
and  $m\angle QRK = 50^\circ$ . Find  $x$ .



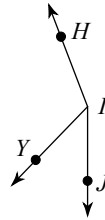
4

- 155)  $m\angle YKL = 110^\circ$ ,  $m\angle JKY = 4x + 17$ ,  
and  $m\angle JKL = 13x + 19$ . Find  $x$ .



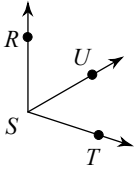
12

- 156) Find  $x$  if  $m\angle JIH = 159^\circ$ ,  $m\angle JIY = x + 53$ ,  
and  $m\angle YIH = x + 124$ .



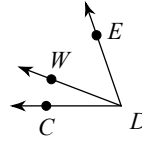
-9

- 157) Find  $x$  if  $m\angle UST = x + 59$ ,  $m\angle RST = 108^\circ$ ,  
and  $m\angle RSU = x + 71$ .



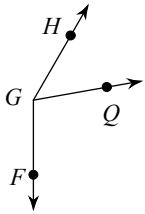
-11

- 158)  $m\angle WDE = x + 52$ ,  $m\angle CDE = 71^\circ$ ,  
and  $m\angle CDW = x + 23$ . Find  $x$ .



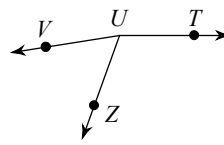
-2

- 159) Find  $x$  if  $m\angle HGF = 2x + 150$ ,  
 $m\angle QGF = x + 100$ , and  $m\angle HGQ = 50^\circ$ .



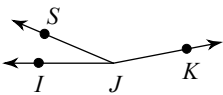
0

- 160) Find  $x$  if  $m\angle TUV = 171^\circ$ ,  
 $m\angle TUZ = x + 122$ , and  $m\angle ZUV = x + 73$ .



-12

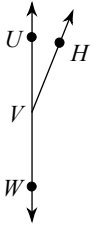
- 161) Find  $x$  if  $m\angle IJK = 169^\circ$ ,  $m\angle IJS = 2x + 5$ ,  
and  $m\angle SJK = -7 + 17x$ .



9

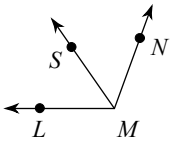


- 162)  $m\angle UVH = 22x$ ,  $m\angle HVW = 158^\circ$ ,  
and  $m\angle UVW = 181x - 1$ . Find  $x$ .



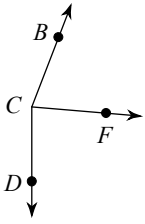
1

- 163) Find  $x$  if  $m\angle LMN = 36x + 2$ ,  $m\angle LMS = 55^\circ$ ,  
and  $m\angle SMN = -2 + 19x$ .



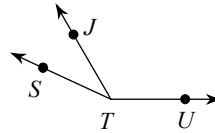
3

- 164)  $m\angle BCD = 159^\circ$ ,  $m\angle BCF = x + 82$ ,  
and  $m\angle FCD = x + 93$ . Find  $x$ .



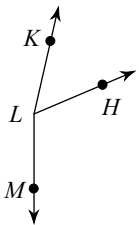
-8

- 165) Find  $x$  if  $m\angle JTU = 16x + 8$ ,  $m\angle STJ = 35^\circ$ ,  
and  $m\angle STU = 21x + 8$ .



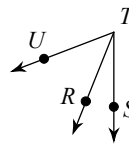
7

- 166)  $m\angle KLM = 167x$ ,  $m\angle HLM = 113^\circ$ ,  
and  $m\angle KLH = 55x - 1$ . Find  $x$ .



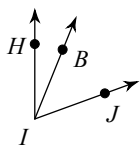
1

- 167)  $m\angle STU = 13x + 4$ ,  $m\angle STR = 22^\circ$ ,  
and  $m\angle RTU = 9x + 2$ . Find  $x$ .



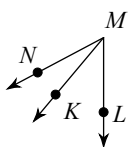
5

- 168) Find  $x$  if  $m\angle HIJ = 7x - 7$ ,  $m\angle BIJ = 48^\circ$ ,  
and  $m\angle HIB = 3x - 11$ .



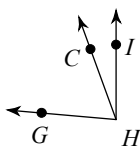
11

- 169) Find  $x$  if  $m\angle LMN = 62^\circ$ ,  $m\angle LMK = x + 40$ ,  
and  $m\angle KMN = x + 22$ .



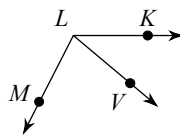
0

- 170)  $m\angle GHI = 85^\circ$ ,  $m\angle CHI = 11x - 2$ ,  
and  $m\angle GHC = 31x + 3$ . Find  $x$ .



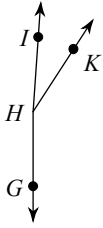
2

- 171)  $m\angle VLM = 12x + 5$ ,  $m\angle KLV = 40^\circ$ ,  
and  $m\angle KLM = 18x + 9$ . Find  $x$ .



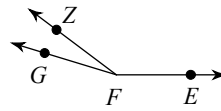
6

- 172) Find  $x$  if  $m\angle IHK = x + 39$ ,  $m\angle IHG = 176^\circ$ ,  
and  $m\angle KHG = x + 157$ .



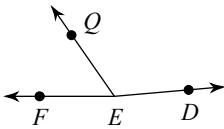
-10

- 173)  $m\angle GFZ = 10 + x$ ,  $m\angle GFE = 163^\circ$ ,  
and  $m\angle ZFE = 14x + 3$ . Find  $x$ .



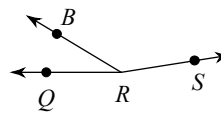
10

- 174) Find  $x$  if  $m\angle QED = 25x - 5$ ,  
 $m\angle FED = 36x - 5$ , and  $m\angle FEQ = 55^\circ$ .



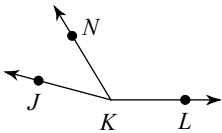
5

- 175) Find  $x$  if  $m\angle QRB = 16x - 1$ ,  
 $m\angle BRS = 140^\circ$ , and  $m\angle QRS = 86x - 1$ .



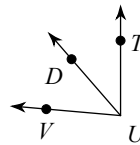
2

- 176) Find  $x$  if  $m\angle NKL = 121^\circ$ ,  
 $m\angle JKL = 56x - 3$ , and  $m\angle JKN = 15x - 1$ .



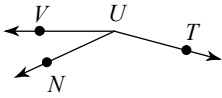
3

- 177)  $m\angle VUT = 85^\circ$ ,  $m\angle DUT = 10x + 1$ ,  
and  $m\angle VUD = 12x - 4$ . Find  $x$ .



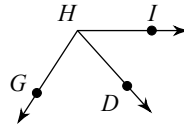
4

- 178)  $m\angle TUV = 82x + 1$ ,  $m\angle TUN = 69x + 2$ ,  
and  $m\angle NUV = 25^\circ$ . Find  $x$ .



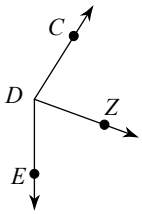
2

- 179) Find  $x$  if  $m\angle IHD = 48^\circ$ ,  $m\angle IHG = 29x + 7$ ,  
and  $m\angle DHG = 18x + 3$ .



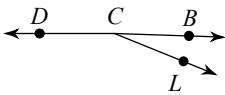
4

- 180) Find  $x$  if  $m\angle ZDE = 70^\circ$ ,  $m\angle CDE = 20x + 8$ ,  
and  $m\angle CDZ = 10x + 8$ .



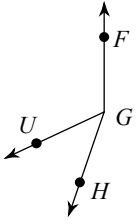
7

- 181) Find  $x$  if  $m\angle BCL = 20^\circ$ ,  $m\angle BCD = 17x - 9$ ,  
and  $m\angle LCD = 15x - 7$ .



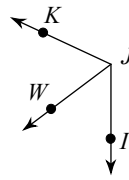
11

- 182)  $m\angle HGF = 18x - 1$ ,  $m\angle HGU = 46^\circ$ ,  
and  $m\angle UGF = 11x + 16$ . Find  $x$ .



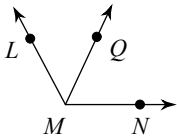
9

- 183) Find  $x$  if  $m\angle WJK = 5x + 7$ ,  $m\angle IJK = 115^\circ$ ,  
and  $m\angle IJW = 5x - 2$ .



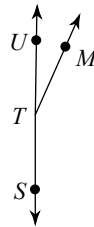
11

- 184)  $m\angle LMQ = 5x - 7$ ,  $m\angle QMN = 65^\circ$ ,  
and  $m\angle LMN = 10x - 2$ . Find  $x$ .



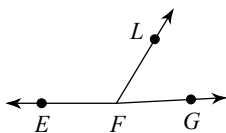
12

- 185)  $m\angle UTS = 179^\circ$ ,  $m\angle UTM = x + 25$ ,  
and  $m\angle MTS = x + 158$ . Find  $x$ .



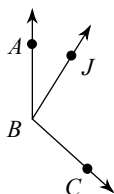
-2

- 186) Find  $x$  if  $m\angle EFL = 11x + 11$ ,  
 $m\angle EFG = 177^\circ$ , and  $m\angle LFG = 6x - 4$ .



10

- 187)  $m\angle ABC = 133x - 1$ ,  $m\angle JBC = 100^\circ$ ,  
and  $m\angle ABJ = 31x + 1$ . Find  $x$ .



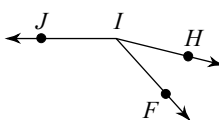
1

- 188) Find  $x$  if  $m\angle PQR = 170^\circ$ ,  
 $m\angle SQR = x + 158$ , and  $m\angle PQS = x + 28$ .



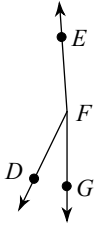
-8

- 189) Find  $x$  if  $m\angle HIF = 34^\circ$ ,  $m\angle HIJ = 1 + 33x$ ,  
and  $m\angle FIJ = 27x - 3$ .



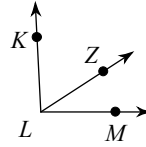
5

- 190)  $m\angle GFD = 7x + 5$ ,  $m\angle GFE = 58x + 2$ ,  
and  $m\angle DFE = 150^\circ$ . Find  $x$ .



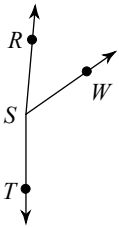
3

- 191) Find  $x$  if  $m\angle ZLM = 6x - 3$ ,  
 $m\angle KLZ = 9x + 6$ , and  $m\angle KLM = 93^\circ$ .



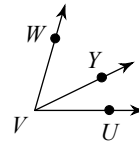
6

- 192) Find  $x$  if  $m\angle RST = 18x - 5$ ,  
 $m\angle WST = 125^\circ$ , and  $m\angle RSW = 5x$ .



10

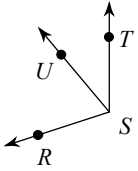
- 193) Find  $x$  if  $m\angle WVY = 48^\circ$ ,  $m\angle YVU = x + 14$ ,  
and  $m\angle WVU = 7x - 10$ .



12

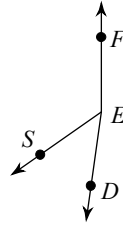


- 194) Find  $x$  if  $m\angle RSU = 6x + 2$ ,  $m\angle UST = 40^\circ$ ,  
and  $m\angle RST = 9x + 9$ .



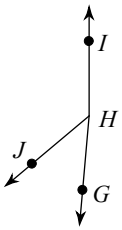
11

- 195)  $m\angle DES = 3x + 14$ ,  $m\angle DEF = 14x + 18$ ,  
and  $m\angle SEF = 125^\circ$ . Find  $x$ .



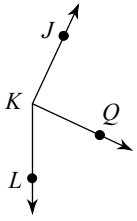
11

- 196) Find  $x$  if  $m\angle JHI = 130^\circ$ ,  $m\angle GHJ = 10x - 5$ ,  
and  $m\angle GHI = 35x$ .



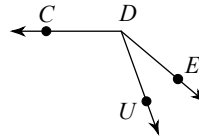
5

- 197) Find  $x$  if  $m\angle QKL = 66x - 1$ ,  
 $m\angle JKL = 155^\circ$ , and  $m\angle JKQ = -1 + 91x$ .



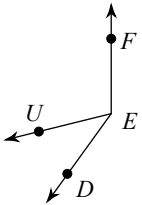
1

- 198) Find  $x$  if  $m\angle EDC = 28x$ ,  $m\angle EDU = 30^\circ$ ,  
and  $m\angle UDC = 22x$ .



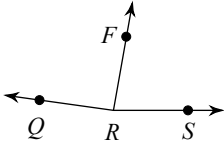
5

- 199) Find  $x$  if  $m\angle UEF = 13x$ ,  $m\angle DEF = 19x - 8$ ,  
and  $m\angle DEU = 40^\circ$ .



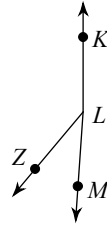
8

- 200) Find  $x$  if  $m\angle FRS = 20x$ ,  $m\angle QRS = 172^\circ$ , and  $m\angle QRF = 23x$ .



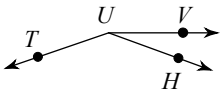
4

- 201) Find  $m\angle ZLK$  if  $m\angle MLZ = x + 47$ ,  $m\angle MLK = 176^\circ$ , and  $m\angle ZLK = x + 151$ .



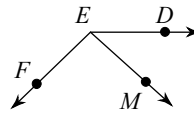
140°

- 202)  $m\angle HUT = 141^\circ$ ,  $m\angle VUH = 2x + 8$ , and  $m\angle VUT = 25x + 11$ . Find  $m\angle VUH$ .



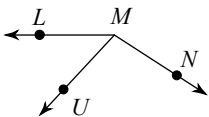
20°

- 203)  $m\angle DEF = 12x + 4$ ,  $m\angle DEM = 4x - 2$ , and  $m\angle MEF = 94^\circ$ . Find  $m\angle DEM$ .



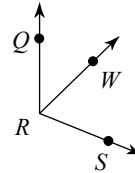
42°

- 204) Find  $m\angle NMU$  if  $m\angle NMU = 12x - 8$ ,  $m\angle NML = 16x + 3$ , and  $m\angle UML = 47^\circ$ .



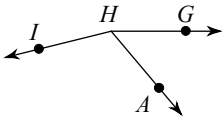
100°

- 205) Find  $m\angle WRS$  if  $m\angle WRS = x + 69$ ,  $m\angle QRW = x + 49$ , and  $m\angle QRS = 112^\circ$ .



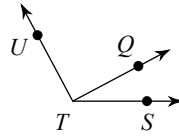
66°

- 206) Find  $m\angle GHA$  if  $m\angle AHI = 9x + 8$ ,  
 $m\angle GHA = 4x + 2$ , and  $m\angle GHI = 166^\circ$ .



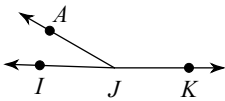
$50^\circ$

- 207) Find  $m\angle UTQ$  if  $m\angle QTS = 2x + 28$ ,  
 $m\angle UTQ = 2x + 90$ , and  $m\angle UTS = 118^\circ$ .



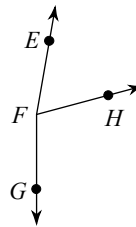
$90^\circ$

- 208) Find  $m\angle IJA$  if  $m\angle IJA = 4x + 8$ ,  
 $m\angle AJK = 150^\circ$ , and  $m\angle IJK = 3 + 35x$ .



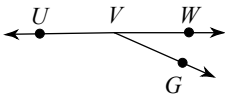
$28^\circ$

- 209)  $m\angle EFH = 5 + 12x$ ,  $m\angle EFG = -5 + 35x$ ,  
and  $m\angle HFG = 105^\circ$ . Find  $m\angle EFH$ .



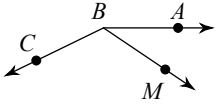
$65^\circ$

- 210)  $m\angle GVU = x + 157$ ,  $m\angle WVU = 179^\circ$ ,  
and  $m\angle WVG = x + 26$ . Find  $m\angle GVU$ .



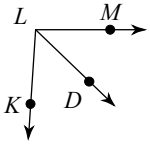
$155^\circ$

- 211) Find  $m\angle MBC$  if  $m\angle ABM = 34^\circ$ ,  
 $m\angle MBC = 39x + 3$ , and  $m\angle ABC = 51x + 1$ .



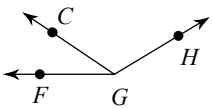
$120^\circ$

- 212) Find  $m\angle DLK$  if  $m\angle MLK = 94^\circ$ ,  
 $m\angle DLK = x + 59$ , and  $m\angle MLD = x + 53$ .



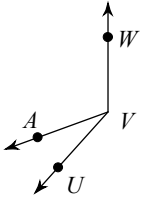
$50^\circ$

- 213) Find  $m\angle CGH$  if  $m\angle FGC = 34^\circ$ ,  
 $m\angle CGH = 116x - 1$ , and  $m\angle FGH = 149x$ .



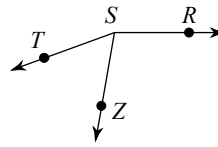
$115^\circ$

- 214)  $m\angle UVA = 28^\circ$ ,  $m\angle UVW = 27x + 3$ ,  
and  $m\angle AVW = 22x$ . Find  $m\angle AVW$ .



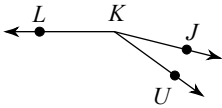
$110^\circ$

- 215) Find  $m\angle ZST$  if  $m\angle RSZ = x + 101$ ,  
 $m\angle RST = 160^\circ$ , and  $m\angle ZST = x + 61$ .



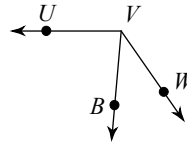
$60^\circ$

- 216)  $m\angle UKL = 144x$ ,  $m\angle JKL = 166^\circ$ ,  
and  $m\angle JKU = 22x$ . Find  $m\angle JKU$ .



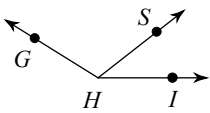
$22^\circ$

- 217)  $m\angle WVU = 14x - 1$ ,  $m\angle BVU = 85^\circ$ ,  
and  $m\angle WVB = 3x + 13$ . Find  $m\angle WVU$ .



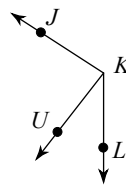
$125^\circ$

- 218) Find  $m\angle SHI$  if  $m\angle GHI = 148x$ ,  
 $m\angle GHS = 110^\circ$ , and  $m\angle SHI = 37x + 1$ .



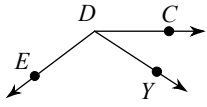
$38^\circ$

- 219) Find  $m\angle UKJ$  if  $m\angle UKJ = 8x + 5$ ,  
 $m\angle LKJ = 12x + 3$ , and  $m\angle LKU = 38^\circ$ .



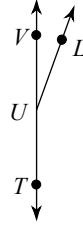
$85^\circ$

- 220)  $m\angle CDE = 23x + 5$ ,  $m\angle CDY = 33^\circ$ ,  
and  $m\angle YDE = 17x + 8$ . Find  $m\angle YDE$ .



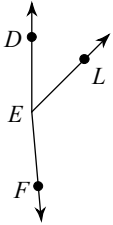
$110^\circ$

- 221)  $m\angle VUL = x + 30$ ,  $m\angle LUT = x + 170$ ,  
and  $m\angle VUT = 180^\circ$ . Find  $m\angle LUT$ .



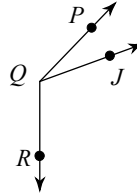
$160^\circ$

- 222) Find  $m\angle DEL$  if  $m\angle DEF = 24x + 7$ ,  
 $m\angle LEF = 130^\circ$ , and  $m\angle DEL = 6x + 3$ .



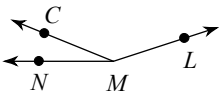
$45^\circ$

- 223) Find  $m\angle PQJ$  if  $m\angle PQJ = x + 37$ ,  
 $m\angle PQR = 136^\circ$ , and  $m\angle JQR = x + 121$ .



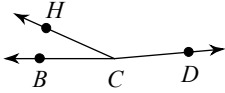
$26^\circ$

- 224) Find  $m\angle NMC$  if  $m\angle NML = 162^\circ$ ,  
 $m\angle NMC = x + 11$ , and  $m\angle CML = 13x - 3$ .



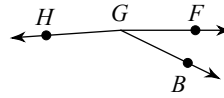
$22^\circ$

- 225) Find  $m\angle HCD$  if  $m\angle BCH = 24^\circ$ ,  
 $m\angle BCD = 176x - 1$ ,  
and  $m\angle HCD = 150x + 1$ .



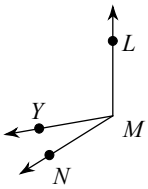
151°

- 226)  $m\angle BGH = x + 155$ ,  $m\angle FGH = 176^\circ$ ,  
and  $m\angle FGB = x + 31$ . Find  $m\angle BGH$ .



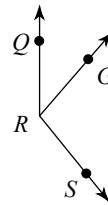
150°

- 227) Find  $m\angle NML$  if  $m\angle NML = 24x + 2$ ,  
 $m\angle YML = 100^\circ$ , and  $m\angle NMY = -3 + 5x$ .



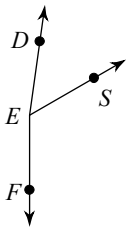
122°

- 228)  $m\angle QRS = 14x + 1$ ,  $m\angle GRS = 11x - 10$ ,  
and  $m\angle QRG = 41^\circ$ . Find  $m\angle QRS$ .



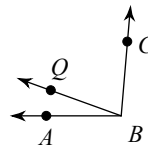
141°

- 229) Find  $m\angle DEF$  if  $m\angle DES = 3x + 16$ ,  
 $m\angle DEF = 15x - 8$ , and  $m\angle SEF = 120^\circ$ .



172°

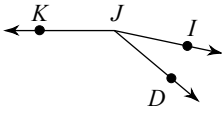
- 230)  $m\angle ABC = 8x - 1$ ,  $m\angle QBC = 75^\circ$ ,  
and  $m\angle ABQ = 2x - 4$ . Find  $m\angle ABC$ .



95°

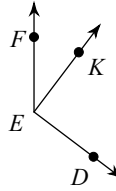


- 231)  $m\angle DJK = x + 151$ ,  $m\angle IJD = x + 39$ ,  
and  $m\angle IJK = 168^\circ$ . Find  $m\angle DJK$ .



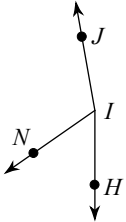
140°

- 232) Find  $m\angle FEK$  if  $m\angle KED = x + 102$ ,  
 $m\angle FED = 127^\circ$ , and  $m\angle FEK = x + 49$ .



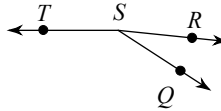
37°

- 233)  $m\angle HIJ = 17x$ ,  $m\angle NIJ = 115^\circ$ ,  
and  $m\angle HIN = 5 + 5x$ . Find  $m\angle HIN$ .



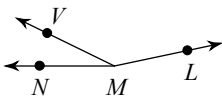
55°

- 234) Find  $m\angle RSQ$  if  $m\angle RST = 174^\circ$ ,  
 $m\angle RSQ = 3x - 9$ , and  $m\angle QST = 12x + 3$ .



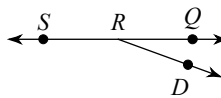
27°

- 235)  $m\angle NML = 21x$ ,  $m\angle VML = 16x + 14$ ,  
and  $m\angle NMV = 26^\circ$ . Find  $m\angle VML$ .



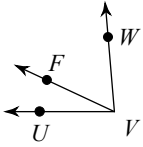
142°

- 236)  $m\angle DRS = 160^\circ$ ,  $m\angle QRD = 6x + 2$ ,  
and  $m\angle QRS = 59x + 3$ . Find  $m\angle QRD$ .



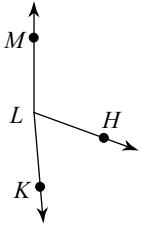
20°

- 237) Find  $m\angle UVF$  if  $m\angle FVW = 60^\circ$ ,  
 $m\angle UVF = 4x + 5$ , and  $m\angle UVW = 18x - 5$ .



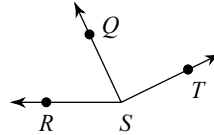
$25^\circ$

- 238)  $m\angle HLK = 7x + 9$ ,  $m\angle MLH = 14x - 2$ ,  
and  $m\angle MLK = 175^\circ$ . Find  $m\angle MLH$ .



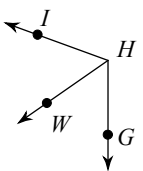
$110^\circ$

- 239) Find  $m\angle RSQ$  if  $m\angle QST = 12 + 11x$ ,  
 $m\angle RSQ = 8x + 9$ , and  $m\angle RST = 154^\circ$ .



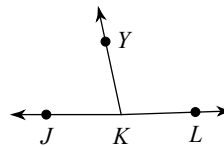
$65^\circ$

- 240)  $m\angle WHI = 55^\circ$ ,  $m\angle GHI = 10x + 10$ ,  
and  $m\angle GHW = 6x - 5$ . Find  $m\angle GHW$ .



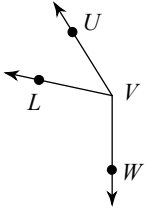
$55^\circ$

- 241)  $m\angle YKL = 9x - 8$ ,  $m\angle JKL = 14x + 10$ ,  
and  $m\angle JKY = 78^\circ$ . Find  $m\angle JKL$ .



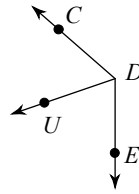
$178^\circ$

- 242) Find  $m\angle WVU$  if  $m\angle LVU = x + 58$ ,  
 $m\angle WVU = 148^\circ$ , and  $m\angle VWL = 114 + x$ .



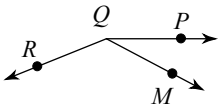
$102^\circ$

- 243)  $m\angle EDU = 71^\circ$ ,  $m\angle EDC = 130x + 1$ ,  
and  $m\angle UDC = 59x + 1$ . Find  $m\angle EDC$ .



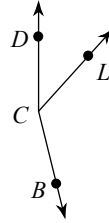
$131^\circ$

- 244)  $m\angle PQM = x + 38$ ,  $m\angle MQR = x + 140$ ,  
and  $m\angle PQR = 158^\circ$ . Find  $m\angle PQM$ .



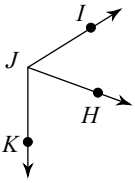
$28^\circ$

- 245) Find  $m\angle DCL$  if  $m\angle DCB = 166^\circ$ ,  
 $m\angle LCB = 63x - 2$ , and  $m\angle DCL = 21x$ .



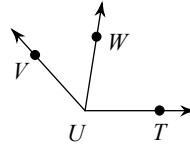
$42^\circ$

- 246) Find  $m\angle IJK$  if  $m\angle IJK = 19x + 8$ ,  
 $m\angle HJK = 70^\circ$ , and  $m\angle IJH = 7x + 10$ .



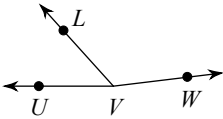
$122^\circ$

- 247)  $m\angle VUW = x + 60$ ,  $m\angle VUT = 132^\circ$ ,  
and  $m\angle WUT = x + 90$ . Find  $m\angle VUW$ .



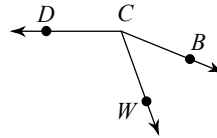
$51^\circ$

- 248)  $m\angle LVW = 133 + x$ ,  $m\angle UVL = x + 56$ ,  
and  $m\angle UVW = 173^\circ$ . Find  $m\angle UVL$ .



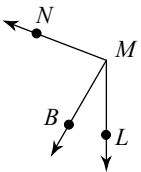
$48^\circ$

- 249)  $m\angle BCD = 78x + 2$ ,  $m\angle BCW = 25x - 2$ ,  
and  $m\angle WCD = 110^\circ$ . Find  $m\angle BCD$ .



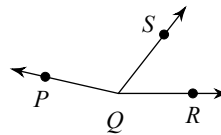
$158^\circ$

- 250)  $m\angle BMN = 9x + 9$ ,  $m\angle LMB = 30^\circ$ ,  
and  $m\angle LMN = 12x + 15$ . Find  $m\angle BMN$ .



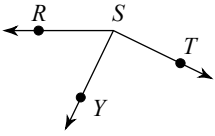
$81^\circ$

- 251)  $m\angle PQS = x + 127$ ,  $m\angle SQR = x + 64$ ,  
and  $m\angle PQR = 167^\circ$ . Find  $m\angle SQR$ .



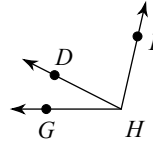
$52^\circ$

- 252) Find  $m\angle TSY$  if  $m\angle TSY = 9x - 9$ ,  
 $m\angle TSR = 15x - 11$ , and  $m\angle YSR = 64^\circ$ .



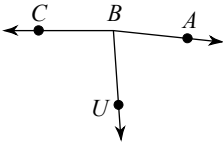
$90^\circ$

- 253)  $m\angle DHI = x + 80$ ,  $m\angle GHI = 103^\circ$ ,  
and  $m\angle GHD = x + 31$ . Find  $m\angle GHD$ .



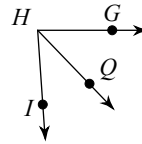
$27^\circ$

- 254)  $m\angle ABU = x + 84$ ,  $m\angle UBC = x + 98$ ,  
and  $m\angle ABC = 174^\circ$ . Find  $m\angle ABU$ .



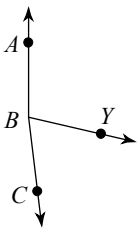
$80^\circ$

- 255) Find  $m\angle QHI$  if  $m\angle GHI = 86^\circ$ ,  
 $m\angle GHQ = 2x + 46$ , and  $m\angle QHI = x + 40$ .



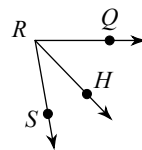
$40^\circ$

- 256)  $m\angle ABY = 25x + 3$ ,  $m\angle ABC = 173^\circ$ ,  
and  $m\angle YBC = 17x + 2$ . Find  $m\angle ABY$ .



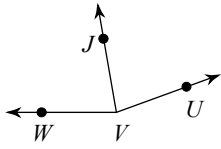
$103^\circ$

- 257) Find  $m\angle QRS$  if  $m\angle QRH = 10x - 4$ ,  
 $m\angle QRS = 15x + 5$ , and  $m\angle HRS = 34^\circ$ .



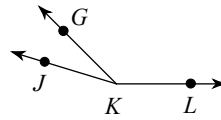
$80^\circ$

- 258)  $m\angle WVU = 6 + 22x$ ,  $m\angle JVU = 12x - 4$ ,  
and  $m\angle WVJ = 80^\circ$ . Find  $m\angle JVU$ .



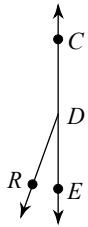
$80^\circ$

- 259) Find  $m\angle JKG$  if  $m\angle JKL = 163^\circ$ ,  
 $m\angle JKG = 3x + 4$ , and  $m\angle GKL = 17x - 1$ .



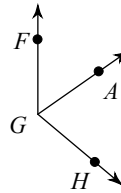
$28^\circ$

- 260)  $m\angle EDR = 6x - 4$ ,  $m\angle RDC = 160^\circ$ ,  
and  $m\angle EDC = 44x + 4$ . Find  $m\angle EDR$ .



$20^\circ$

- 261) Find  $m\angle AGH$  if  $m\angle FGA = x + 61$ ,  
 $m\angle FGH = 130^\circ$ , and  $m\angle AGH = x + 81$ .



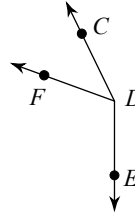
$75^\circ$

- 262) Find  $m\angle HGF$  if  $m\angle UGF = 160^\circ$ ,  
 $m\angle HGF = 180x$ , and  $m\angle HGU = 19x + 1$ .



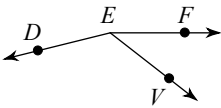
180°

- 263) Find  $m\angle EDC$  if  $m\angle FDC = 5x + 9$ ,  
 $m\angle EDC = 21x + 7$ , and  $m\angle EDF = 110^\circ$ .



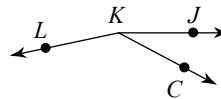
154°

- 264)  $m\angle VED = 128^\circ$ ,  $m\angle FED = 17x - 4$ ,  
and  $m\angle FEV = 3x + 8$ . Find  $m\angle FED$ .



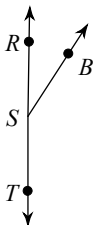
166°

- 265)  $m\angle JKC = x + 36$ ,  $m\angle CKL = x + 148$ ,  
and  $m\angle JKL = 168^\circ$ . Find  $m\angle CKL$ .



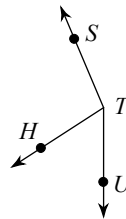
140°

- 266)  $m\angle RST = 179^\circ$ ,  $m\angle BST = 30x - 3$ ,  
and  $m\angle RSB = 6x + 2$ . Find  $m\angle RSB$ .



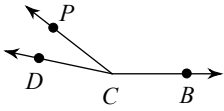
32°

- 267)  $m\angle UTS = 157^\circ$ ,  $m\angle HTS = 17x - 2$ ,  
and  $m\angle UTH = 10x - 3$ . Find  $m\angle HTS$ .



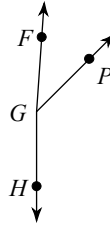
100°

- 268) Find  $m\angle DCB$  if  $m\angle DCP = 5x + 6$ ,  
 $m\angle DCB = 42x$ , and  $m\angle PCB = 142^\circ$ .



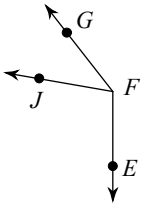
168°

- 269)  $m\angle FGP = 41^\circ$ ,  $m\angle PGH = 2x + 135$ ,  
and  $m\angle FGH = x + 176$ . Find  $m\angle PGH$ .



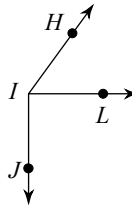
135°

- 270) Find  $m\angle JFG$  if  $m\angle EFG = 142^\circ$ ,  
 $m\angle EFJ = x + 112$ , and  $m\angle JFG = x + 54$ .



42°

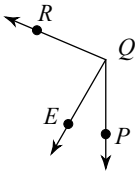
- 271)  $m\angle HIJ = 144^\circ$ ,  $m\angle HIL = x + 64$ ,  
and  $m\angle LIJ = x + 100$ . Find  $m\angle LIJ$ .



90°

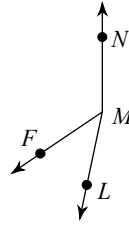


- 272)  $m\angle PQR = 56x + 1$ ,  $m\angle EQR = 83^\circ$ ,  
and  $m\angle PQE = 14x + 2$ . Find  $m\angle PQR$ .



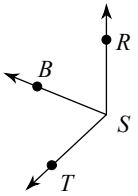
113°

- 273) Find  $m\angle FMN$  if  $m\angle FMN = -8 + 12x$ ,  
 $m\angle LMF = 44^\circ$ , and  $m\angle LMN = 16x - 8$ .



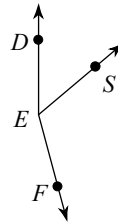
124°

- 274) Find  $m\angle TSB$  if  $m\angle BSR = 68^\circ$ ,  
 $m\angle TSR = 1 + 33x$ , and  $m\angle TSB = 15x + 5$ .



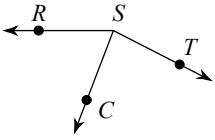
65°

- 275)  $m\angle SEF = x + 115$ ,  $m\angle DES = 50^\circ$ ,  
and  $m\angle DEF = 2x + 165$ . Find  $m\angle SEF$ .



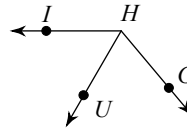
115°

- 276) Find  $m\angle TSR$  if  $m\angle TSR = 1 + 76x$ ,  
 $m\angle TSC = 43x - 2$ , and  $m\angle CSR = 69^\circ$ .



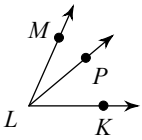
$153^\circ$

- 277) Find  $m\angle UHI$  if  $m\angle GHU = 70^\circ$ ,  
 $m\angle GHI = 14x + 4$ , and  $m\angle UHI = 6x + 6$ .



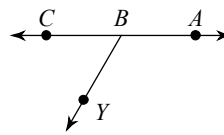
$60^\circ$

- 278) Find  $m\angle PLK$  if  $m\angle MLP = 3x + 5$ ,  
 $m\angle PLK = 4x + 12$ , and  $m\angle MLK = 66^\circ$ .



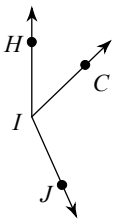
$40^\circ$

- 279) Find  $m\angle ABC$  if  $m\angle ABY = 120^\circ$ ,  
 $m\angle ABC = 30x$ , and  $m\angle YBC = 9x + 6$ .



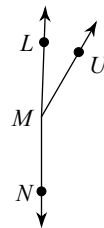
$180^\circ$

- 280) Find  $m\angle CIJ$  if  $m\angle HIJ = 156^\circ$ ,  
 $m\angle CIJ = 114 + x$ , and  $m\angle HIC = x + 50$ .



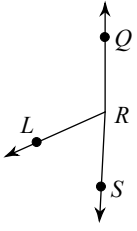
$110^\circ$

- 281) Find  $m\angle LMU$  if  $m\angle LMU = 34 + x$ ,  
 $m\angle LMN = 178^\circ$ , and  $m\angle UMN = x + 156$ .



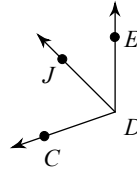
$28^\circ$

- 282)  $m\angle SRQ = 26x - 5$ ,  $m\angle LRQ = 114^\circ$ ,  
and  $m\angle SRL = 9x$ . Find  $m\angle SRQ$ .



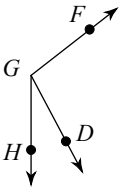
177°

- 283) Find  $m\angle JDE$  if  $m\angle CDJ = x + 70$ ,  
 $m\angle JDE = x + 51$ , and  $m\angle CDE = 109^\circ$ .



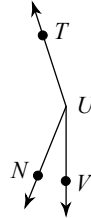
45°

- 284) Find  $m\angle FGD$  if  $m\angle FGD = x + 104$ ,  
 $m\angle FGH = 128^\circ$ , and  $m\angle DGH = x + 32$ .



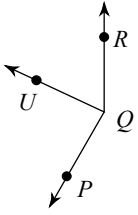
100°

- 285) Find  $m\angle VUT$  if  $m\angle NUT = 16x + 12$ ,  
 $m\angle VUT = 20x + 2$ , and  $m\angle VUN = 22^\circ$ .



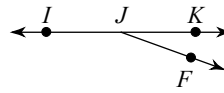
162°

- 286) Find  $m\angle PQU$  if  $m\angle UQR = 8x + 1$ ,  
 $m\angle PQR = 150^\circ$ , and  $m\angle PQU = 11x - 3$ .



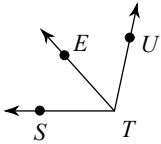
$85^\circ$

- 287) Find  $m\angle KJF$  if  $m\angle FJI = x + 164$ ,  
 $m\angle KJF = x + 24$ , and  $m\angle KJI = 180^\circ$ .



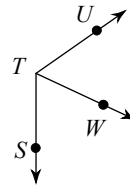
$20^\circ$

- 288) Find  $m\angle ETU$  if  $m\angle STU = 102^\circ$ ,  
 $m\angle ETU = x + 64$ , and  $m\angle STE = x + 58$ .



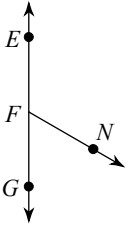
$54^\circ$

- 289)  $m\angle WTS = 65^\circ$ ,  $m\angle UTW = 5x + 10$ ,  
and  $m\angle UTS = 11x + 15$ . Find  $m\angle UTS$ .



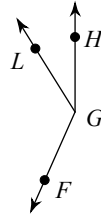
$125^\circ$

- 290)  $m\angle NFG = 70 + x$ ,  $m\angle EFN = x + 130$ ,  
and  $m\angle EFG = 180^\circ$ . Find  $m\angle EFN$ .



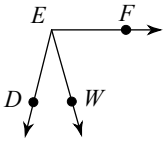
$120^\circ$

- 291) Find  $m\angle FGH$  if  $m\angle FGL = 9x + 16$ ,  
 $m\angle LGH = 32^\circ$ , and  $m\angle FGH = 13x$ .



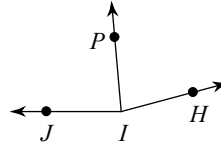
$156^\circ$

- 292)  $m\angle FED = 104^\circ$ ,  $m\angle FEW = x + 76$ ,  
and  $m\angle WED = x + 32$ . Find  $m\angle WED$ .



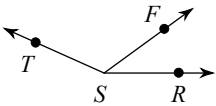
$30^\circ$

- 293) Find  $m\angle JIP$  if  $m\angle JIH = 165^\circ$ ,  
 $m\angle JIP = x + 91$ , and  $m\angle PIH = x + 86$ .



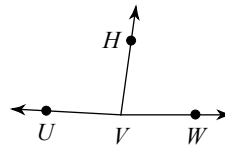
$85^\circ$

- 294) Find  $m\angle TSR$  if  $m\angle TSR = 38x + 4$ ,  
 $m\angle FSR = 10x - 4$ , and  $m\angle TSF = 120^\circ$ .



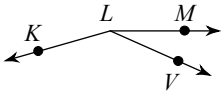
$156^\circ$

- 295)  $m\angle HVW = 13x + 4$ ,  $m\angle UVW = 28x + 9$ ,  
and  $m\angle UVH = 95^\circ$ . Find  $m\angle UVW$ .



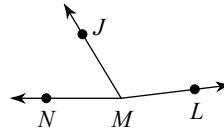
$177^\circ$

- 296)  $m\angle MLV = 13x - 2$ ,  $m\angle MLK = 81x + 2$ ,  
and  $m\angle VLK = 140^\circ$ . Find  $m\angle MLK$ .



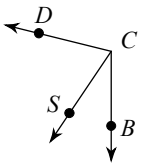
164°

- 297) Find  $m\angle JML$  if  $m\angle NML = 13x + 17$ ,  
 $m\angle JML = 8x + 18$ , and  $m\angle NMJ = 59^\circ$ .



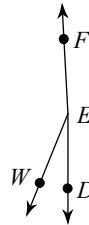
114°

- 298)  $m\angle SCD = 10x + 10$ ,  $m\angle BCD = 104^\circ$ ,  
and  $m\angle BCS = 5x + 4$ . Find  $m\angle BCS$ .



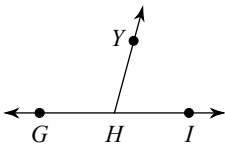
34°

- 299)  $m\angle WEF = 17x + 2$ ,  $m\angle DEF = 177^\circ$ ,  
and  $m\angle DEW = 2x + 4$ . Find  $m\angle DEW$ .



22°

- 300) Find  $m\angle GHI$  if  $m\angle YHI = 75^\circ$ ,  
 $m\angle GHI = 15x + 15$ , and  $m\angle GHY = 9x + 6$ .



180°