1.5 Angle Addition Practice Problems

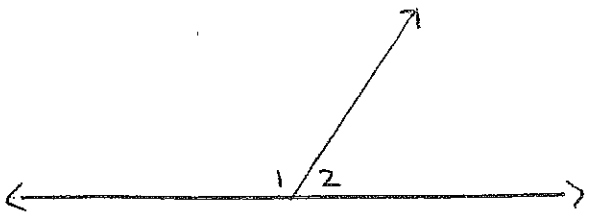
TIP: you should always LABEL the figure with the information you know. This way it will be easier for you to understand and visualize what the problem is asking you to find.

(1) If $\angle 1$ and $\angle 2$ form a linear pair and $m\angle 2 = 166$, find $m\angle 1$.

(2) If $\angle 1$ and $\angle 2$ are vertical angles and $m\angle 1 = x$ and $m\angle 2 = 288 - 3x$, find $m\angle 1$ and $m\angle 2$.

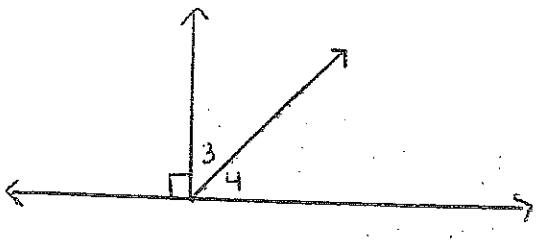
(3) If $\angle 1$ and $\angle 2$ are vertical angles and $m\angle 1 = d - 32$ and $m\angle 2 = 175 - 2d$, find $m\angle 1$ and $m\angle 2$.

(4)



$m\angle 2 = 67$
$m\angle 1 = ?$

(5)



$m\angle 3 = 38$
$m\angle 4 = ?$

(6) <7 and <8 are complementary.

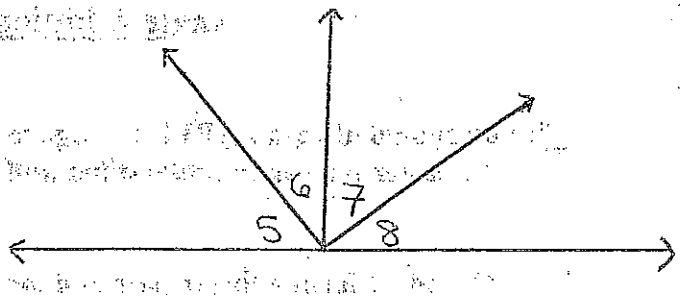
<5 ≅ <8

m<6 = 29

Find m<5 =

m<7 =

m<8 =

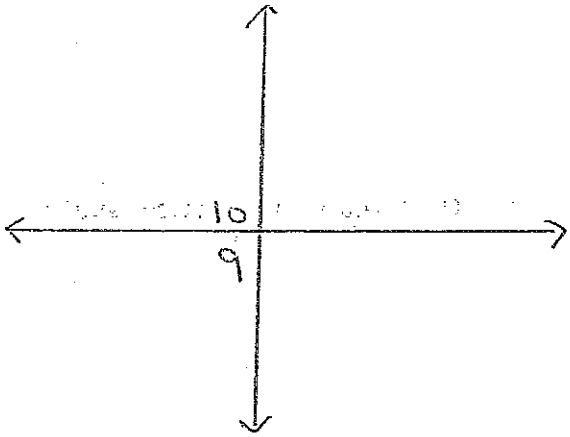


(7) m<9 = 2x - 4

m<10 = 2x + 4

Find m<9 =

m<10 =

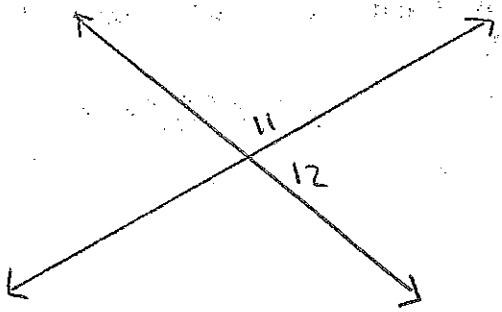


(8) m<11 = 4x

m<12 = 2x – 6

Find m<11 =

m<12 =

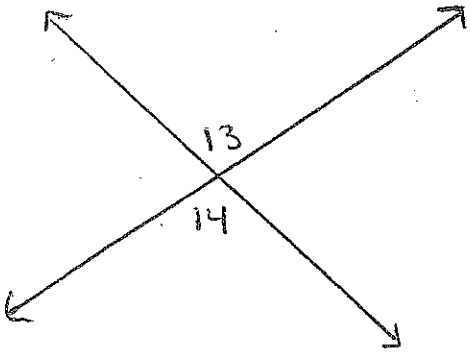


(9) m<13 = 2x + 94

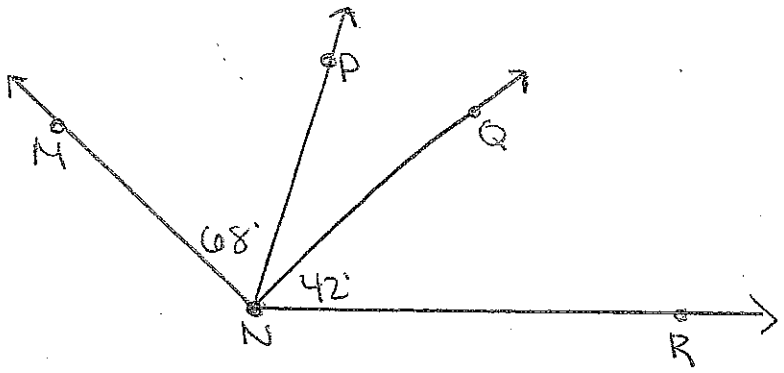
m<14 = 7x + 49

Find m<13 =

m<14 =



(10) If m<MNR = 160, then m<PNQ = ?

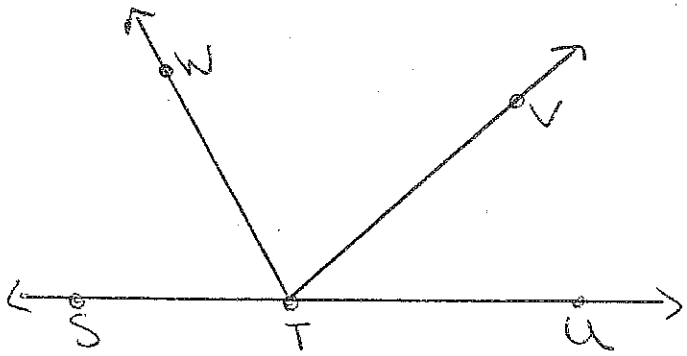


(11) m<WTS = 2x + 16

m<WTU = 5x – 4

Find m<WTS =

m<WTU =



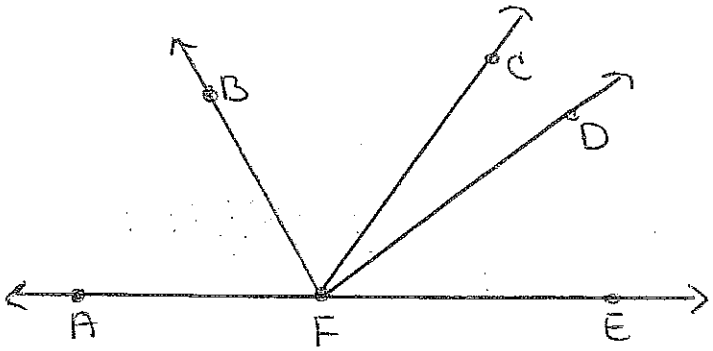
(12) <BFC $\cong$ <CFD

m<DFE = 23

m<BFA = 47

Find m<BFC =

m<CFD =



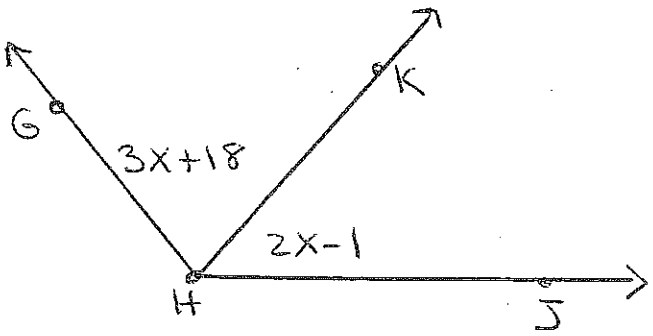
(13) m<GHJ = 7x – 33

Find x =

m<GHK =

m<KHJ =

m<GHJ =



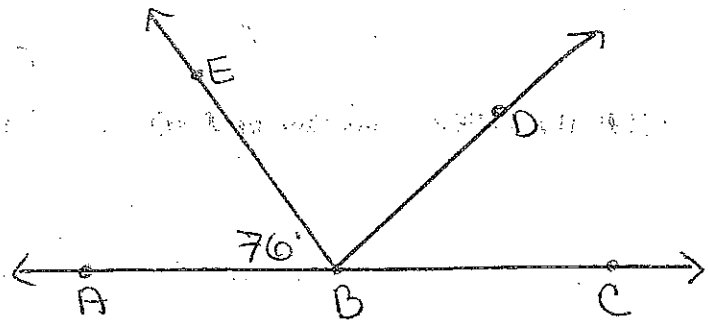
(14) $\overrightarrow{BD}$ bisects <EBC

Find m<EBC =

m<EBD =

m<DBC =

m<DBA =

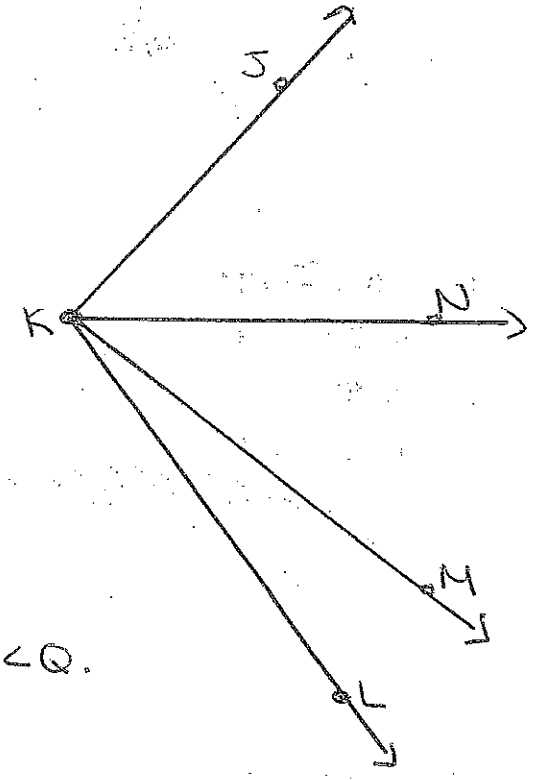


(15) $\overrightarrow{KN}$ bisects <JKL. $\overrightarrow{KM}$ bisects <NKL. m<MKL = 33

Find m<MKN =

m<LKN =

m<LKJ =



(16) Suppose <P is a supplement of <Q.

m<P = 6x − 10 and m<Q = 4x.

(a) Find x. (b) Find m<P (c) Find m<Q