

WORKING WITH SEGMENTS

#1 IF $\overline{HG} = 60$



$$\overline{HI} = 2x - 8$$

$$\overline{IG} = 3x - 12$$

$x =$

$\overline{HI} =$

$\overline{IG} =$

#2 IF $\overline{EG} = 100$



$$\overline{EF} = 4x - 20$$

$$\overline{FG} = 2x + 30$$

$x =$

$\overline{EF} =$

$\overline{FG} =$

#3 IF $\overline{XZ} = 55$



$$\overline{XY} = 5x + 3$$

$$\overline{YZ} = 3x - 4$$

$x =$

$\overline{XY} =$

$\overline{YZ} =$

#4 IF K IS A MIDPOINT TO \overline{JL}

$$\overline{JK} = 5m + 3$$

$$\overline{KL} = 2(3m + 5) - 18$$

$m =$

$\overline{JK} =$

$* \overline{JL} =$

#5 IF M IS A MIDPOINT TO \overline{LN}

$$\overline{LM} = 2(3e - 2) + 5$$

$$\overline{MN} = 5(2e - 5) + 10$$

$e =$

$\overline{LM} =$

$* \overline{LN} =$

FIND THE MIDPOINT GIVEN THESE ENDPOINTS.

#1 FIND B, MIDPOINT TO \overline{AC}

IF $A(3, -2)$

B =

$C(5, 10)$

#2 FIND Y, MIDPOINT TO \overline{XZ}

IF $X(-1, 7)$

Y =

$Z(4, -3)$

#3 FIND E, MIDPOINT TO \overline{DF}

IF $D(11\frac{1}{3}, -5\frac{2}{5})$

E =

$F(7\frac{1}{2}, 3\frac{3}{4})$

FIND THE ENDPOINT GIVEN THE MIDPOINT & OTHER ENDPOINT.

#4 FIND G, IF F IS MIDPOINT TO \overline{EG}

$F(-1, 7)$

G =

$E(5, 3)$

#5 FIND N, IF M IS MIDPOINT TO \overline{LN}

$L(-2, 7)$

N =

$M(3, 9)$

#6 FIND Q, IF R IS MIDPOINT TO \overline{QS}

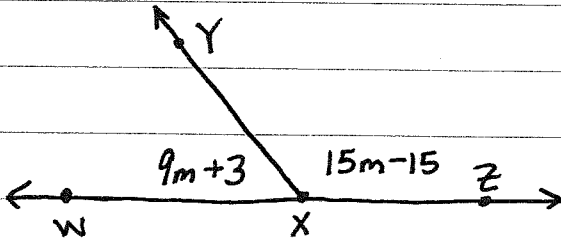
$R(-3\frac{1}{3}, 5\frac{1}{2})$

Q =

$S(2\frac{1}{2}, 3\frac{1}{5})$

ANGLES

#1

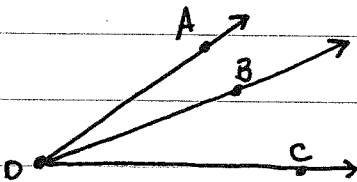


$m =$

$m\angle WXY =$

$m\angle YXZ =$

#2



IF $m\angle ADC = 78$

$w =$

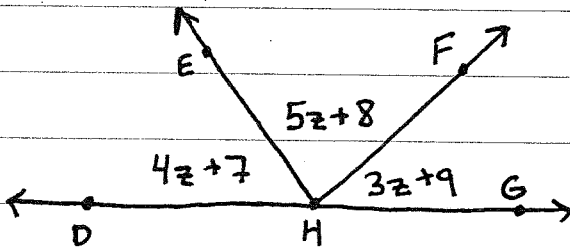
$m\angle ADB = 5w - 9$

$m\angle ADB =$

$m\angle BDC = 3w + 15$

$m\angle BDC =$

#3



$z =$

$m\angle DHE =$

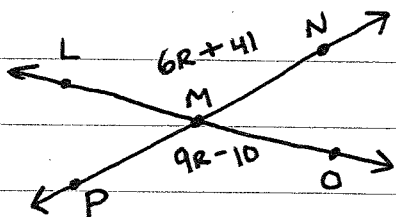
$m\angle EHF =$

$m\angle FHG =$

* $m\angle DHF =$

* $m\angle EHG =$

#4

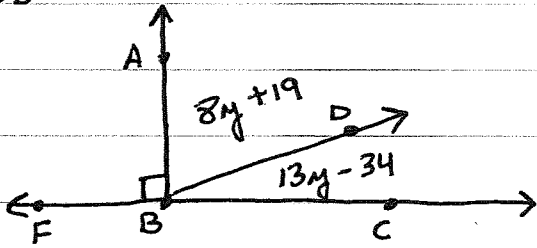


$R =$

$m\angle LMN =$

$m\angle LMP =$

#5



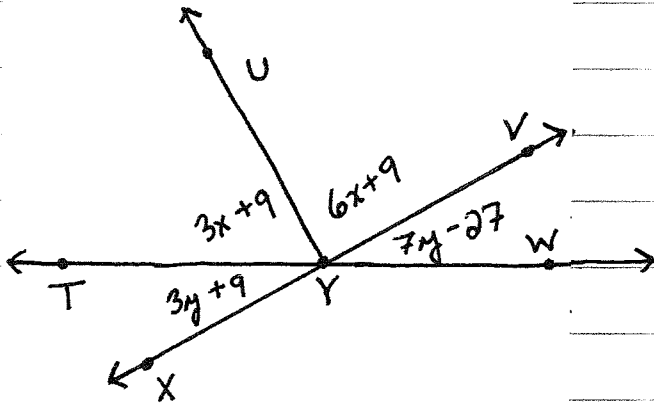
$$m =$$

$$m\angle ABD =$$

$$m\angle DBC =$$

$$m\angle FBD =$$

#6



$$m =$$

$$m\angle XYT =$$

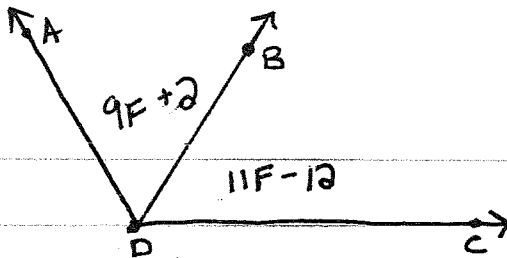
$$m\angle TYV =$$

$$x =$$

$$m\angle TYU =$$

$$m\angle UYV =$$

#7



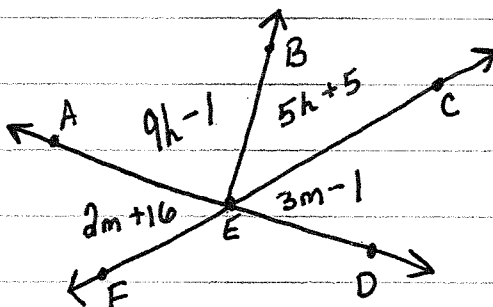
$$F =$$

$$m\angle ADB =$$

$$m\angle ADC =$$

\vec{DB} BISECTS $\angle ADC$

#8



$$m =$$

$$m\angle AEF =$$

$$m\angle FED =$$

$$m\angle AEC =$$

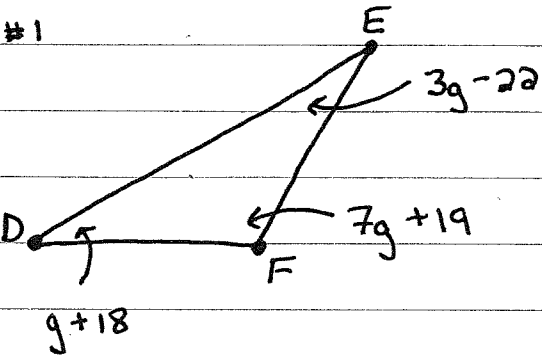
$$h =$$

$$m\angle AEB =$$

$$m\angle BEC =$$

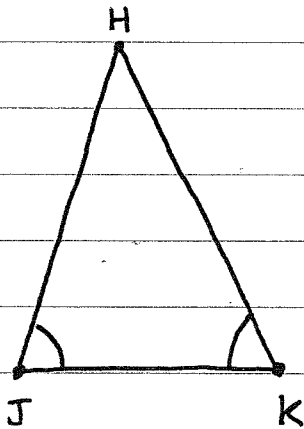
TRIANGLES

#1



$g =$
 $m\angle D =$
 $m\angle E =$
 $m\angle F =$

#2



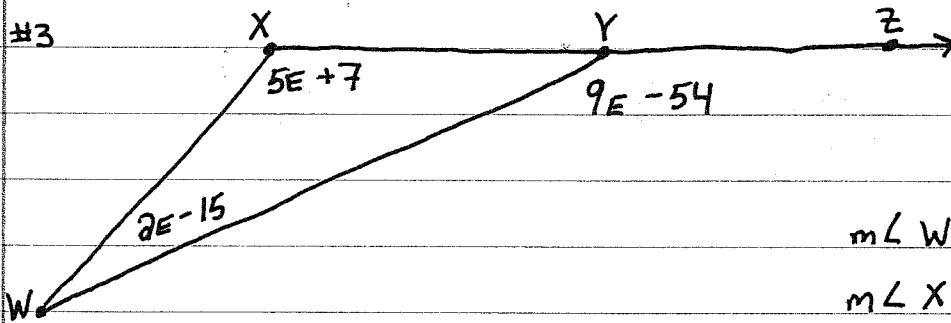
$\triangle HJK$ IS AN ISOSCELES

$m\angle J = 7n + 1$

$m\angle K = 9n - 21$

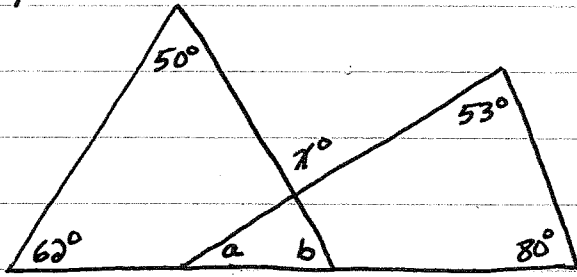
$n =$
 $m\angle J =$
 $m\angle H =$

#3



$E =$
 $m\angle W =$
 $m\angle X =$
 $m\angle XYW =$
 $m\angle WYZ =$

#4

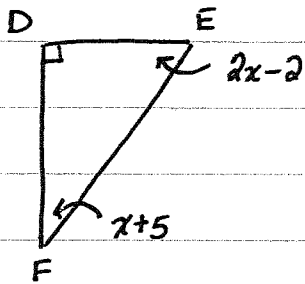


$x =$

$a =$

$b =$

#5

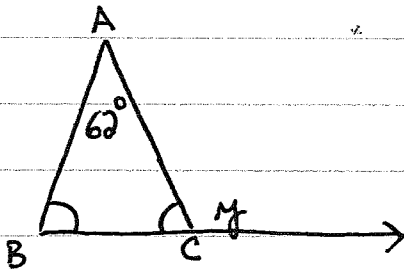


$x =$

$m\angle E =$

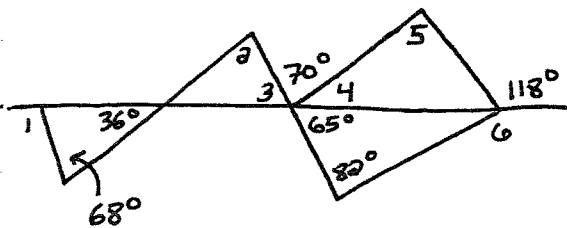
$m\angle F =$

#6



$y =$
 $m\angle B =$

#7



$m\angle 1 =$

$m\angle 2 =$

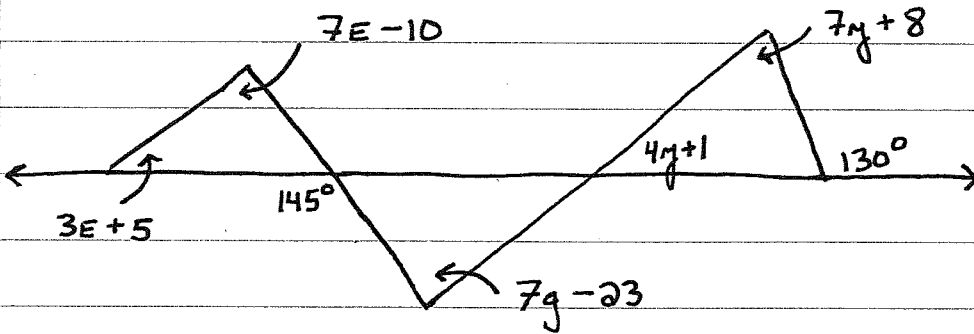
$m\angle 3 =$

$m\angle 4 =$

$m\angle 5 =$

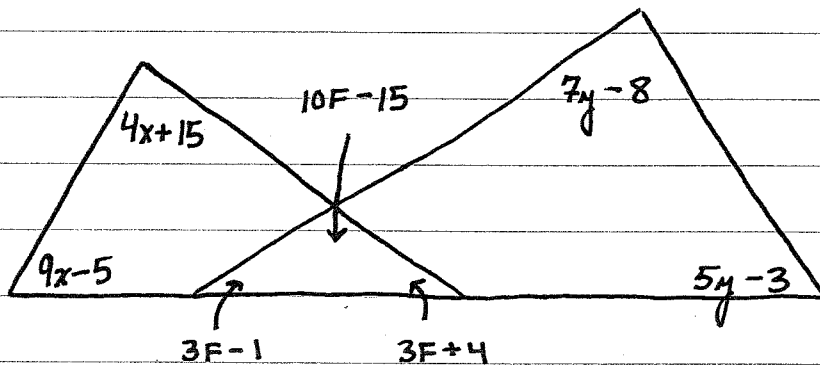
$m\angle 6 =$

#8



$$\begin{aligned} m\angle 7g+8 &= \\ m\angle 4g+1 &= \\ m\angle 7g-23 &= \\ m\angle 7E-10 &= \\ m\angle 3E+5 &= \end{aligned}$$

#9



$$\begin{aligned} m\angle 10F-15 &= \\ m\angle 3F-1 &= \\ m\angle 3F+4 &= \end{aligned}$$

$$\begin{aligned} m\angle 7g-8 &= \\ m\angle 5g-3 &= \end{aligned}$$

$$\begin{aligned} m\angle 4x+15 &= \\ m\angle 9x-5 &= \end{aligned}$$