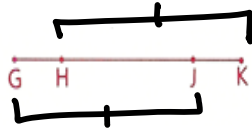


2.7 Q&A P7

Note Title

9/29/2015

6 Given: $\overline{GJ} \cong \overline{HK}$
 Conclusion: $\overline{GH} \cong \overline{JK}$



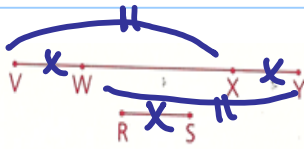
Statements

1. $\overline{GJ} \cong \overline{HK}$
2. $\overline{HJ} \cong \overline{HJ}$
3. $\overline{GH} \cong \overline{JK}$

Reasons

1. Given
2. Ref
3. Subtract

10 Given: $\overline{VW} \cong \overline{RS}$,
 $\overline{XY} \cong \overline{RS}$
 Prove: $\overline{VX} \cong \overline{WY}$



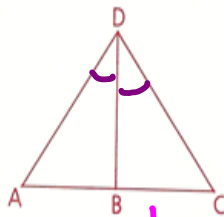
Statements

1. $\overline{VW} \cong \overline{RS}$
2. $\overline{VW} \cong \overline{XY}$
3. $\overline{WX} \cong \overline{XY}$
4. $\overline{VX} \cong \overline{WY}$

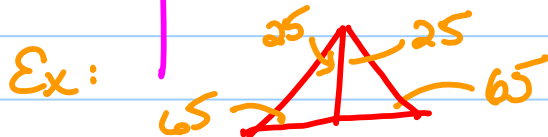
Reasons

1. given
2. Trans (1)
3. Ref
4. Add (2,3)

- 12 Given: $\angle A$ is comp. to $\angle ADB$.
 $\angle C$ is comp. to $\angle CDB$.
 \overrightarrow{DB} bisects $\angle ADC$.
 Conclusion: $\angle A \cong \angle C$



Statements	Reasons
1. \overrightarrow{DB} bis $\angle ADC$	1. Given
2. $\angle ADB \cong \angle CDB$	2. bis $\Rightarrow \cong \angle$ s
3. $\angle A$ comp $\angle ADB$ $\angle C$ comp $\angle CDB$	3. Given
4. $\angle A \cong \angle C$	4. \angle s comp to $\cong \angle$ s $\Rightarrow \cong \angle$ s

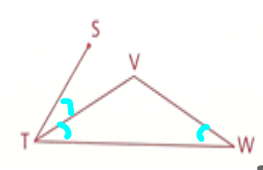


- 15 Given: $\angle A$ is a right \angle .
 $\angle B$ is a right \angle .
 $\angle B \cong \angle D$
 Prove: $\angle A \cong \angle D$



Statements	Reasons
1. $\angle A$ rt \angle , $\angle B$ rt \angle	1. Given
2. $\angle A \cong \angle B$	2. rt \angle s $\Rightarrow \cong \angle$ s (1)
3. $\angle B \cong \angle D$	3. Given
4. $\angle A \cong \angle D$	4. trans (2,3)

$\angle W \cong \angle STV$;
 $\rightarrow TV$ bisects $\angle STW$.
 $\angle W = (2x - 5)^\circ$;
 $\angle VTW = (x + 15)^\circ$
 Find: $m\angle STW$



$\rightarrow TV$ bis $\angle STW$ (g)

$\angle STV \cong \angle VTW$ (bis $\Rightarrow \cong \angle s$)

$\angle STV \cong \angle W$ (g)

$\angle VTW \cong \angle W$ (trans)

$\angle VTW = \angle W$ ($\cong \angle s \Rightarrow = meas$)

$x + 15 = 2x - 5$ (substitute)

$-x + 5 \quad -x + 5$

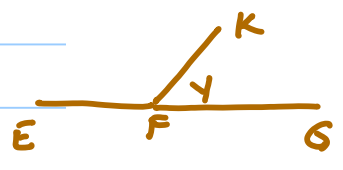
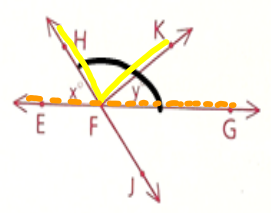
$20 = x$

$\rightarrow m\angle STW = x + 15$
 $= 20 + 15$
 $= 35^\circ$

Problem 6

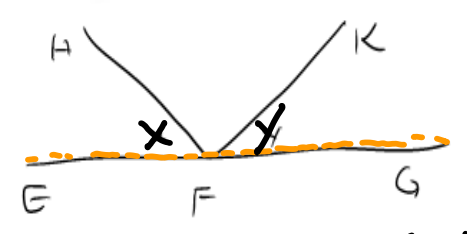
Find the measures of each of the following angles in terms of x and y .

- a $\angle HFK$
- b $\angle EFK = 180 - y$
- c $\angle HFG = 180 - x$



$\angle EFK + \angle KFG = 180$
 $\angle EFK + y = 180$
 $-y \quad -y$
 $\angle EFK = 180 - y$

(diag \rightarrow st \angle)
(substitute)



$\angle HFE + \angle HFK + \angle KFG = \angle EFG$
 $x + \angle HFK + y = 180$
 $-x \quad -y \quad -x \quad -y$

(a) $\angle HFK = 180 - x - y$