Geometry

Unit One B: Flowchart Proofs #4 (IC10)

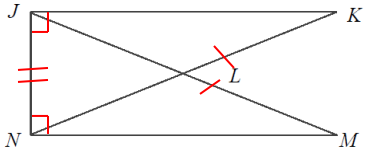
Name: _____

Date: _____ Period: _____

Given: $\angle KJN$ and $\angle MNJ$ are right angles

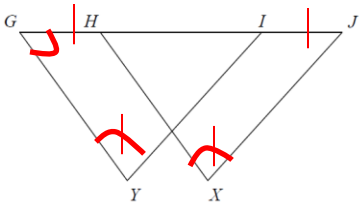
$\overline{JM} \cong \overline{NK}$

Prove: $\Delta MJN \cong \Delta KNJ$



Given: $\overline{GH} \cong \overline{JI}$; $\angle G \cong \angle J$; $\angle Y \cong \angle X$

Prove: $\Delta JXH \cong \Delta GYI$



$\angle KJN$ and $\angle MNJ$ are right angles

Given

$\overline{JM} \cong \overline{NK}$

Given

Given

$\overline{JN} \cong \overline{JN}$

Reflexive

$\Delta MJN \cong \Delta KNJ$

HL

$\overline{GH} \cong \overline{JI}$

Given

$\angle G \cong \angle J$

Given

$\angle Y \cong \angle X$

Given

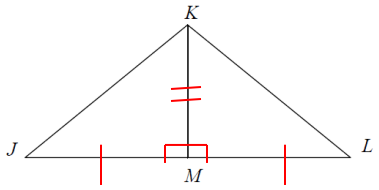
$\overline{GI} \cong \overline{GI}$

Overlapping seg

$\Delta JXH \cong \Delta GYI$

AAS

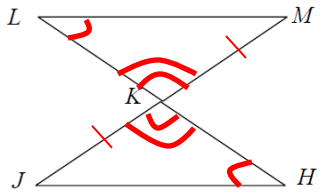
Given: $\overline{KM}$ is the perpendicular bisector of $\overline{JL}$



Prove: $\Delta JKM \cong \Delta LKM$

Given		
$\overline{KM}$ ⊥ bisector of $\overline{JL}$		
$\angle KMJ$ & $\angle KML$ are rt. $\angle$'s	$\overline{JM} \cong \overline{LM}$	$\overline{KM} \cong \overline{KM}$
Def. ⊥ bisector	Def. ⊥ bisector	Reflexive
$\angle JMP \cong \angle KPL$	$\Delta JKM \cong \Delta LKM$	
All rt. $\angle$'s ≅	SAS	

Given: $\overline{LH}$ bisects $\overline{MJ}$; $\angle L \cong \angle H$



Prove: $\Delta LKM \cong \Delta HKJ$

Given	Given	
$\overline{LH}$ bisects $\overline{MJ}$	$\angle L \cong \angle H$	
$\overline{JK} \cong \overline{MK}$		$\angle LKM \cong \angle HKJ$
Def. seg. bisector		Vert. $\angle$'s ≅
$\Delta LKM \cong \Delta HKJ$		
AAS		