

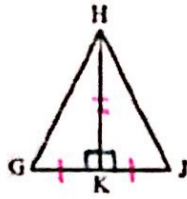
Day 4 – Proving Triangles Congruent Practice

Answer the following questions:

1. Given: \overline{HK} bisects \overline{GJ}

$\triangle GKH \cong \triangle JKH$ by SAS if one knows that

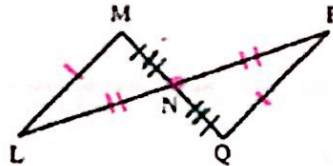
$\angle HKG \cong \angle HKJ$



2. Given: $\overline{LM} \cong \overline{PQ}$, N is the midpoint of \overline{LP}

$\triangle NML \cong \triangle NQP$ by SSS if one knows that

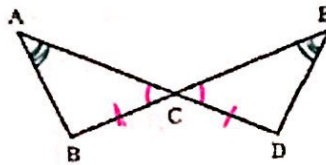
$\overline{MN} \cong \overline{NQ}$



3. Given: $\overline{BC} \cong \overline{DC}$

$\triangle ABC \cong \triangle EDC$ by AAS if one knows that

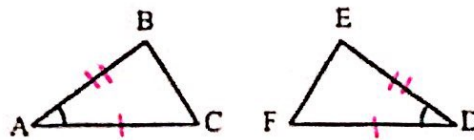
$\angle A \cong \angle E$



4. Given: $\overline{AC} \cong \overline{DF}$, $\overline{AB} \cong \overline{DE}$

$\triangle ABC \cong \triangle DEF$ by SAS if one knows that

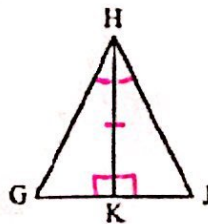
$\angle A \cong \angle D$



5. Given: \overline{HK} bisects $\angle GHJ$

$\triangle HKG \cong \triangle HKJ$ by ASA if one knows that

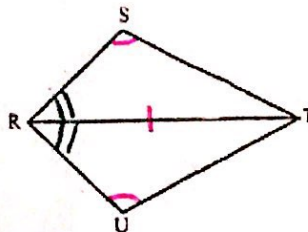
$\angle HKG \cong \angle HKJ$



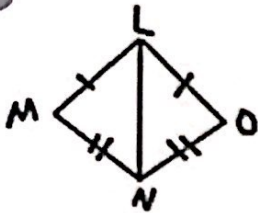
6. Given: $\angle S \cong \angle U$

$\triangle TRS \cong \triangle TRY$ by AAS if one knows that

$\angle SRT \cong \angle YRT$

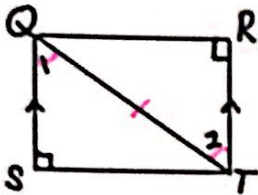


Problem 1:



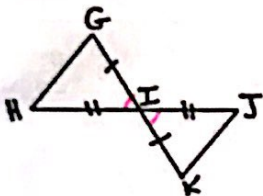
Statement	Reason
1. $\overline{LM} \cong \overline{LO}$	1. Given
2. $\overline{MN} \cong \overline{ON}$	2. Given
3. $\overline{LN} \cong \overline{LN}$	3. Reflexive Prop
4. $\triangle LMN \cong \triangle LON$	4. SSS

Problem 2:



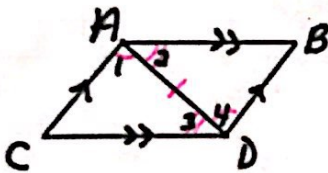
Statement	Reason
1. $\overline{QS} \parallel \overline{RT}$	1. Given
2. $\angle R \cong \angle S$	2. Right \angle 's are \cong
3. $\angle 1 \cong \angle 2$	3. Alt. Int. \angle 's are \cong
4. $\overline{QT} \cong \overline{QT}$	4. Reflexive Prop
5. $\triangle QST \cong \triangle TRQ$	5. AAS

Problem 3:



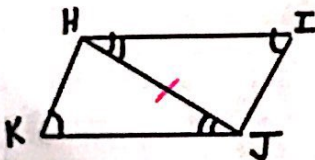
Statement	Reason
1. $\overline{GI} \cong \overline{KI}$	1. Given
2. $\overline{HI} \cong \overline{JI}$	2. Given
3. $\angle GIH \cong \angle KIJ$	3. Vertical \angle 's are \cong
4. $\triangle GIH \cong \triangle KIJ$	4. SAS

Problem 4:



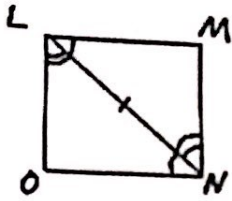
Statement	Reason
1. $\overline{AC} \parallel \overline{BD}, \overline{AB} \parallel \overline{CD}$	1. Given
2. $\angle 1 \cong \angle 4, \angle 2 \cong \angle 3$	2. Alt. Int. \angle 's are \cong
3. $\overline{AD} \cong \overline{AD}$	3. Reflexive Prop
4. $\triangle ADC \cong \triangle DAB$	4. ASA

Problem 5:



Statement	Reason
1. $\angle I \cong \angle K$	1. Given
2. $\angle IHJ \cong \angle KJH$	2. Given
3. $\overline{HJ} \cong \overline{HJ}$	3. Reflexive Prop
4. $\triangle HJK \cong \triangle JHI$	4. AAS

Geometry
Problem 6:

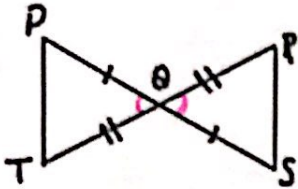


Unit 4: Triangle Congruence

Notes & Practice

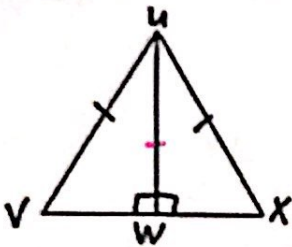
Statement	Reason
1. $\angle MLN \cong \angle ONL$	1. Given
2. $\angle OLN \cong \angle MNL$	2. Given
3. $LN \cong LN$	3. Reflexive Property
4. $\triangle LNO \cong \triangle NLM$	4. ASA

Problem 7:



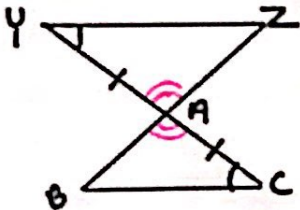
Statement	Reason
1. $\overline{PQ} \cong \overline{RQ}$	1. Given
2. $\overline{QT} \cong \overline{QS}$	2. Given
3. $\angle PQT \cong \angle RQS$	3. Vertical \angle 's are \cong
4. $\triangle PQT \cong \triangle RQS$	4. SAS

Problem 8:



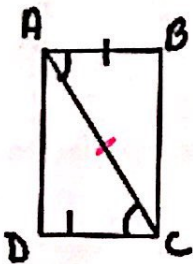
Statement	Reason
1. $\overline{UV} \cong \overline{UX}$	1. Given
2. $\angle UWV \cong \angle UWX$	2. Right Angle Congruence
3. $\overline{UW} \cong \overline{UW}$	3. Reflexive Property
4. $\triangle UWV \cong \triangle UWX$	4. HL

Problem 9:



Statement	Reason
1. $\angle Y \cong \angle C$	1. Given
2. $\overline{YZ} \cong \overline{CB}$	2. Given
3. $\angle YAZ \cong \angle CAB$	3. Vertical Angles are \cong
4. $\triangle YZA \cong \triangle CAB$	4. ASA

Problem 10:



Statement	Reason
1. $\angle BAC \cong \angle DCA$	1. Given
2. $\overline{AB} \cong \overline{DC}$	2. Given
3. $\overline{AC} \cong \overline{AC}$	3. Reflexive Prop
4. $\triangle ABC \cong \triangle CDA$	4. SAS