

5-20-19

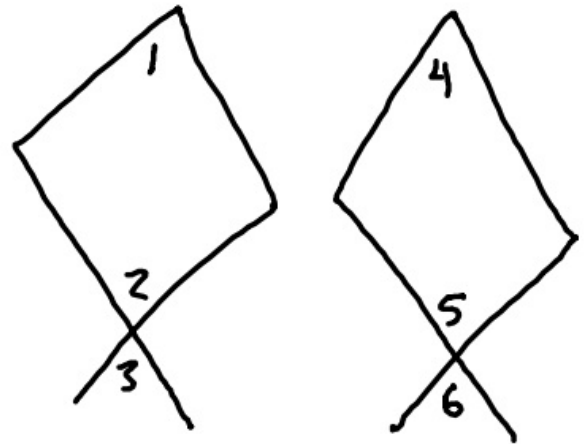
5th Geo

Given: $\angle 1 = \angle 3$

$\angle 4 = \angle 6$

$\angle 1 = \angle 4$

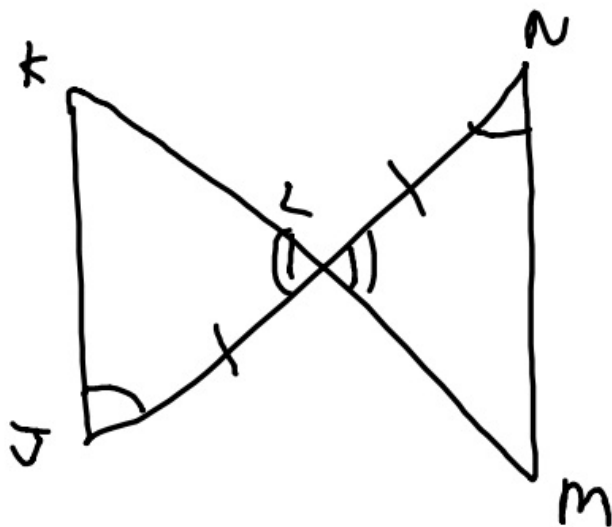
Prove: $\angle 2 = \angle 5$



Statement	Justification
① $\angle 1 = \angle 3$	① Given
② $\angle 3 = \angle 2$	② vert. \angle 's are =
③ $\angle 1 = \angle 2$	③ Transitive Prop.
④ $\angle 4 = \angle 6$	④ Given
⑤ $\angle 6 = \angle 5$	⑤ vert. \angle 's are =
⑥ $\angle 4 = \angle 5$	⑥ Transitive
⑦ $\angle 1 = \angle 4$	⑦ Given
⑧ $\angle 2 = \angle 4$	⑧ Substitution (lines 3/7)
⑨ $\angle 2 = \angle 5$	⑨ Substitution (lines 6/8)

Given: $\angle J = \angle N$
 \overline{KM} bisects \overline{JN}
 $\angle K = 3$

Prove: $\angle M = 3$



Statement	Justification
① $\angle J = \angle N$	① Given
② \overline{KM} bisects \overline{JN}	② Given
③ $JL = NL$	③ Def. of bisection of lines.
④ $\angle JLK = \angle NLM$	④ Vertical \angle 's are \cong .
⑤ $\triangle JLK \cong \triangle NLM$	⑤ ASA
⑥ $\overline{JK} \cong \overline{NM}$	⑥ CPCTC
⑦ $\angle K = 3$	⑦ Given
⑧ $\angle M = 3$	⑧ Transitive

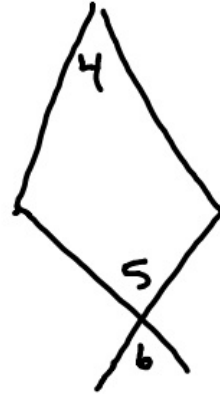
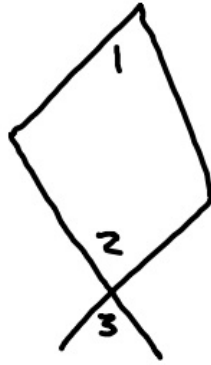
5-20-19 6th Geo

Given: $\angle 1 = \angle 3$

$\angle 4 = \angle 6$

$\angle 1 = \angle 4$

Prove: $\angle 2 = \angle 5$



Statement	Justification
① $\angle 1 = \angle 3$	① Given
② $\angle 3 = \angle 2$	② Vertical \angle 's are =.
③ $\angle 1 = \angle 2$	③ Transitive Prop.
④ $\angle 4 = \angle 6$	④ Given
⑤ $\angle 6 = \angle 5$	⑤ Vertical \angle 's are =
⑥ $\angle 4 = \angle 5$	⑥ Transitive
⑦ $\angle 1 = \angle 4$	⑦ Given
⑧ $\angle 2 = \angle 5$	⑧ Substitution (lines 3 & 6)

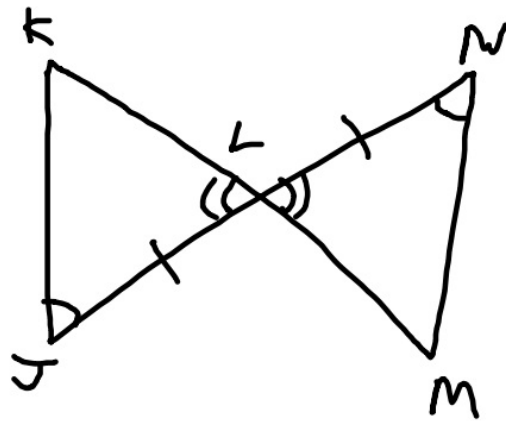
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Given: $\angle J = \angle N$

\overline{KM} bisects \overline{JN}

$JK = 3$

Prove: $NM = 3$



Statement	Justification
① $\angle J = \angle N$	① Given
② \overline{KM} bisects \overline{JN}	② Given
③ $JL = NL$	③ Def. of bisection of a line
④ $\angle JLK = \angle NLM$	④ Vertical \angle 's are =.
⑤ $\triangle JLK \cong \triangle NLM$	⑤ ASA
⑥ $JK = NM$	⑥ CPCTC
⑦ $JK = 3$	⑦ Given
⑧ $NM = 3$	⑧ Transitive