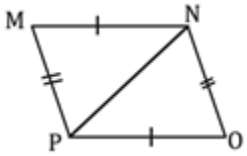
Geometry A
CPCTC Practice Homework

Name : _____
Date : _____ Period : ____

1. **Given:** $\overline{MN} \cong \overline{PO}, \overline{MP} \cong \overline{NO}$

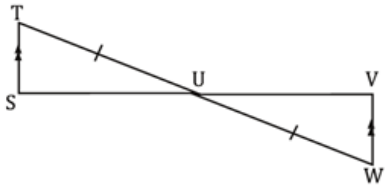
   Prove: $\angle M \cong \angle O$



Statements	Reasons
1. $\overline{MN} \cong \overline{PO}$	1.
2. $\overline{MP} \cong \overline{NO}$	2.
3.	3. Reflexive Property
4. $\Delta NMP \cong \Delta PON$	4.
5. $\angle M \cong \angle O$	5.

2. **Given:** $\overline{TS} \parallel \overline{VW}, \overline{TU} \cong \overline{WU}$

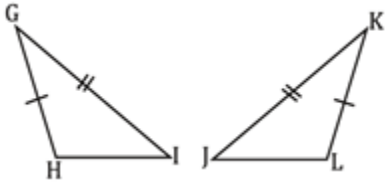
   Prove: $\overline{TS} \cong \overline{VW}$



Statements	Reasons
1. $\overline{TS} \parallel \overline{VW}$	1.
2. $\angle STU \cong \angle VWU$	2.
3.	3. Given
4.	4. Vertical Angles Theorem
5. $\Delta TUS \cong \Delta WUV$	5.
6.	6.

3. **Given:** $\overline{GH} \cong \overline{KL}, \angle G \cong \angle K, \overline{GI} \cong \overline{KJ}$

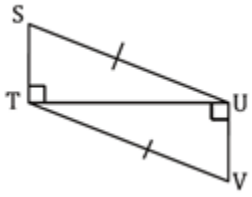
   Prove: $\overline{HI} \cong \overline{LJ}$



Statements	Reasons
1.	1. Given
2. $\angle G \cong \angle K$	2.
3.	3. Given
4. $\Delta HGI \cong \Delta LKJ$	4.
5.	5. CPCTC

4. **Given:** $\overline{SU} \cong \overline{VT}$; ΔSTU and ΔVUT are right triangles

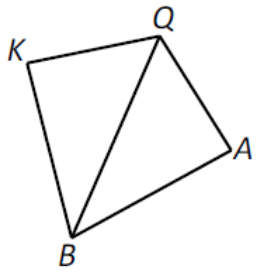
Prove: $\overline{ST} \cong \overline{UV}$



Statements	Reasons
1.	1. Given
2.	2. Given
3.	3. Reflexive Property
4. $\Delta STU \cong \Delta VUT$	4.
5. $\overline{ST} \cong \overline{UV}$	5.

5. **Given:** $\overline{QB}$ bisects $\angle KQA$, $\angle K \cong \angle A$

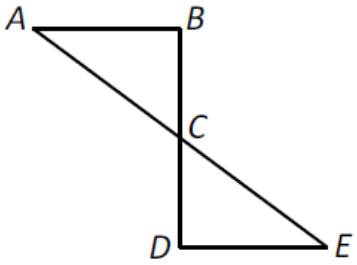
Prove: $\overline{KB} \cong \overline{AB}$



Statements	Reasons
1. $\overline{QB}$ bisects $\angle KQA$	1.
2. $\angle KQB \cong \angle AQB$	2.
3. $\angle K \cong \angle A$	3.
4.	4. Reflexive Property
5.	5.
6. $\overline{KB} \cong \overline{AB}$	6.

6. **Given:** C is midpoint of $\overline{AE}$ and $\overline{BD}$

Prove: $\overline{AB} \cong \overline{DE}$



Statements	Reasons

Answer Key:

1) 1. Given 2. Given 3. $\overline{NP} \cong \overline{NP}$ 4. SSS 5. CPCTC

2) 1. Given 2. Alt. Interior Angles Theorem 3. $\overline{TU} \cong \overline{WU}$ 4. $\angle TUS \cong \angle WUV$
5. ASA 6. $\overline{TS} \cong \overline{VW}$; CPCTC

3) 1. $\overline{GH} \cong \overline{KL}$ 2. Given 3. $\overline{GI} \cong \overline{KJ}$ 4. SAS 5. $\overline{HI} \cong \overline{LJ}$

4) 1. $\overline{SU} \cong \overline{VT}$ 2. $\triangle STU$ and $\triangle VUT$ are right triangles 3. $\overline{TU} \cong \overline{TU}$ 4. HL 5. CPCTC

5) 1. Given 2. Definition of angle bisector 3. Given 4. $\overline{QB} \cong \overline{QB}$ 5. $\triangle KQB \cong \triangle AQB$; AAS
6. CPCTC

6) 1. C is the midpoint of $\overline{AE}$; Given 2. $\overline{AC} \cong \overline{EC}$; Definition of midpoint
3. C is the midpoint of $\overline{BD}$; Given 4. $\overline{BC} \cong \overline{DC}$; Definition of midpoint 5. $\angle ACB \cong \angle ECD$; VAT
6. $\triangle ACB \cong \triangle ECD$; SAS 7. $\overline{AB} \cong \overline{DE}$; CPCTC