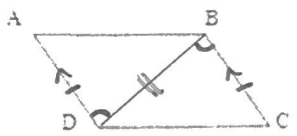
CPCTC Partner Check **Geometry**

1)



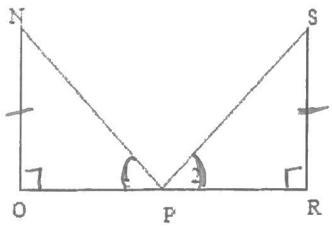
Given: $\overline{AD} \parallel \overline{BC}$

$\overline{AD} \cong \overline{BC}$

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

Statements	Reasons
① $AD \parallel BC$	① Given
② $\overline{AD} \cong \overline{BC}$	② Given
③ $\overline{BD} \cong \overline{BD}$	③ Reflexive Prop.
④ $\angle ADB \cong \angle CBD$	④ Alt. Int. $\angle$'s
⑤ $\triangle ADB \cong \triangle CBD$	⑤ SAS
⑥ $\overline{AB} \cong \overline{CD}$	⑥ CPCTC

2)



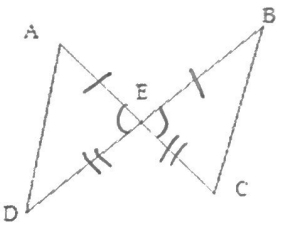
Given: $\overline{NO} \perp \overline{OR}, \overline{SR} \perp \overline{OR}$

$\angle 1 \cong \angle 2, \overline{NO} \cong \overline{SR}$

Prove: $\overline{NP} \cong \overline{SP}$

Statements	Reasons
① $\overline{NO} \perp \overline{OR}$, $\overline{SR} \perp \overline{OR}$	① Given
② $\angle 1 \cong \angle 2$	② Given
③ $\overline{NO} \cong \overline{SR}$	③ Given
④ $\angle O$ and $\angle R$ are right angles	④ Def. of $\perp$
⑤ $\angle O \cong \angle R$	⑤ Right $\angle$'s $\cong$
⑥ $\triangle NOP \cong \triangle SRP$	⑥ AAS
⑦ $\overline{NP} \cong \overline{SP}$	⑦ CPCTC

3)



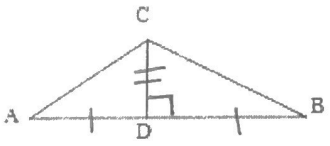
Given: $\overline{AE} \cong \overline{BE}$

$\overline{DE} \cong \overline{CE}$

Prove: $\angle D \cong \angle C$

Statements	Reasons
① $\overline{AE} \cong \overline{BE}$	① Given
② $\overline{DE} \cong \overline{CE}$	② Given
③ $\angle AED \cong \angle BEC$	③ Vert. $\angle$'s
④ $\triangle AED \cong \triangle BEC$	④ SAS
⑤ $\angle D \cong \angle C$	⑤ CPCTC

4)



Given: $\overline{CD} \perp \overline{AB}$

D is the mp of $\overline{AB}$

Prove: $\overline{CA} \cong \overline{CB}$

Statements	Reasons
① $\overline{CD} \perp \overline{AB}$	① Given
② D is mp of $\overline{AB}$	② Given
③ $\overline{AD} \cong \overline{DB}$	③ Def. of Midpoint
④ $\angle CDA$ and $\angle CDB$ are right $\angle$'s	④ Def. of $\perp$
⑤ $\angle CDA \cong \angle CDB$	⑤ Right $\angle$'s $\cong$
⑥ $\triangle ACD \cong \triangle BCD$	⑥ SAS
⑦ $\overline{CA} \cong \overline{CB}$	⑦ CPCTC