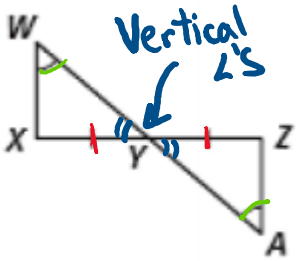
Congruent Triangles Review Name_____ Block_____

Complete the following proofs.

1.

Given that $\angle YWX \cong \angle YAZ$ and $\overline{XY} \cong \overline{ZY}$

Prove that $\Delta XWY \cong \Delta ZAY$

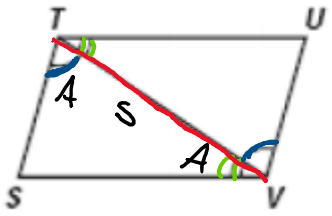


Statement	Reason
$\angle YWZ \cong \angle YAZ$	Given
$\overline{XY} \cong \overline{ZY}$	Given
$\angle WYX \cong \angle AYZ$	Vert. ∠'s Thm.
$\Delta XWY \cong \Delta ZAY$	AAS

2.

Given that $\measuredangle STV \cong \measuredangle UVT$ and $\measuredangle TVS \cong \measuredangle VTU$

Prove that $\Delta STV \cong \Delta UVT$

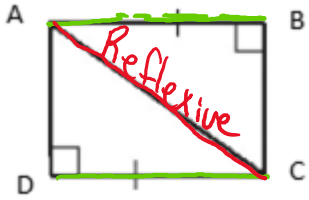


Statement	Reason
$\angle UVT \cong \angle STV$	Given
$\angle UTV \cong \angle SVT$	Given
$\overline{TV} = \overline{VT}$	Reflexive
$\Delta UTV \cong \Delta SVT$	ASA

2.

Given that $\angle ABC \cong \angle CDA$ and $\overline{AB} \cong \overline{CD}$

Prove that $\Delta ABC \cong \Delta CDA$

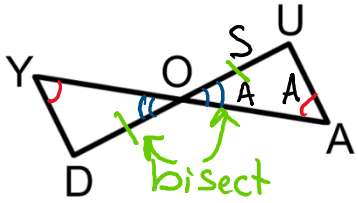


Statement	Reason
$\overline{AB} \cong \overline{CD}$	Given
$\overline{AC} \cong \overline{CA}$	Given
$\Delta ABC \cong \Delta CDA$	HL

4.

Given that $\overline{YA}$ *bisects* $\overline{UD}$ and $\angle Y \cong \angle A$

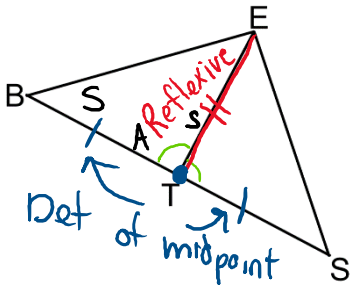
Prove that $\Delta YOD \cong \Delta AOU$



Statement	Reason
$\overline{YA}$ bisects $\overline{UD}$	Given
$\angle Y \cong \angle A$	Given
$\angle YOD \cong \angle AOU$	Vertical ∠'s Thm
$m\overline{DO} = m\overline{UO}$	Def. of Bisect
$\overline{DO} \cong \overline{UO}$	Def. of $\cong$
$\Delta YOD \cong \Delta AOU$	AAS

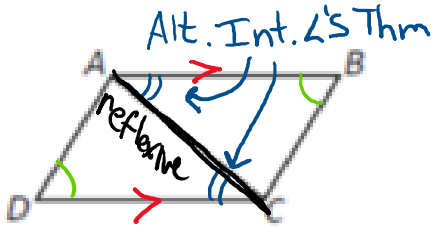
Complete the following proofs.

5. Given: $\angle ETS \cong \angle ETB$ and T *is the midpoint of* $\overline{BS}$
Prove: $\overline{BE} \cong \overline{SE}$



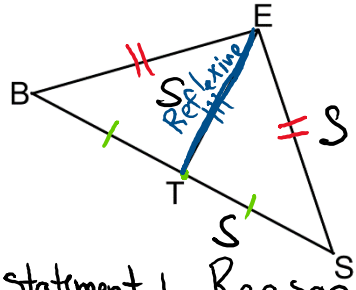
Statement	Reason
$\angle ETS \cong \angle ETB$	Given
T is the midpoint	Given
$\overline{BT} \cong \overline{ST}$	Def. of midpoint
$\overline{ET} \cong \overline{ET}$	Reflexive Prop.
$\triangle BET \cong \triangle SET$	SAS
$\overline{BE} \cong \overline{SE}$	CPCTC

6. Given: $\angle ABC \cong \angle CDA$ and $\overline{AB} \parallel \overline{CD}$
Prove: $\overline{BC} \cong \overline{DA}$



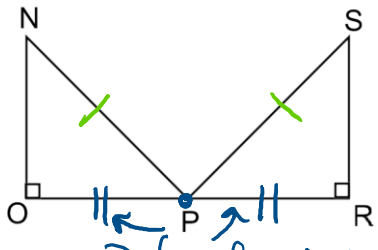
Statement	Reason
$\angle ABC \cong \angle CDA$	Given
$\overline{AB} \parallel \overline{CD}$	Given
$\overline{AC} \cong \overline{CA}$	Reflexive Prop.
$\angle BAC \cong \angle DCA$	Alt. Int. ∠'s Thm.
$\triangle ADC \cong \triangle CBA$	AAS
$\overline{BC} \cong \overline{DA}$	CPCTC

7. Given: $\overline{ET}$ *bisects* $\overline{SB}$ and $\overline{ES} \cong \overline{EB}$
Prove: $\angle EBT \cong \angle EST$



Statement	Reason
ET bisects SB	Given
$\overline{ES} \cong \overline{EB}$	Given
$\overline{ET} \cong \overline{ET}$	Reflexive Prop.
$m\overline{BT} = m\overline{ST}$	Def. of Bisect.
$\overline{BT} \cong \overline{ST}$	Def. of $\cong$
$\triangle BET \cong \triangle SET$	SSS
$\angle EBT \cong \angle EST$	CPCTC

8. Given: $\overline{NP} \cong \overline{SP}$ and P is the midpoint of $\overline{OR}$
Prove: $\angle OPN \cong \angle RPS$



Statement	Reason
$\overline{NP} \cong \overline{SP}$	Given
P is the midpoint of $\overline{OR}$	Given
$\overline{OP} \cong \overline{RP}$	Def. of midpoint
$\triangle NOP \cong \triangle SRP$	HL
$\angle OPN \cong \angle RPS$	CPCTC