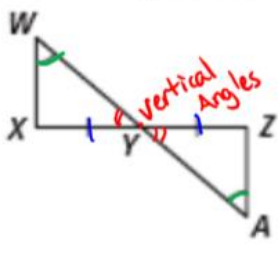


Complete the following proofs.

1. Write as a 2 column proof.

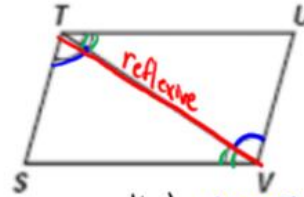
Given that $\angle YWX \cong \angle YAZ$ and $\overline{XY} \cong \overline{ZY}$
 Prove that $\triangle XWY \cong \triangle ZAY$



Statement	Reason
$\angle YWX \cong \angle YAZ$	Given
$\overline{XY} \cong \overline{ZY}$	Given
$\angle WYX \cong \angle AZY$	Vert. \angle 's Thm
$\triangle XWY \cong \triangle ZAY$	AAS

2. Write as a paragraph proof.

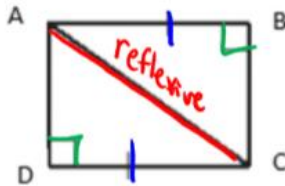
Given that $\angle STV \cong \angle UVT$ and $\angle TVS \cong \angle VTU$
 Prove that $\triangle STV \cong \triangle UVT$



It is given that $\angle STV \cong \angle UVT$ and $\angle TVS \cong \angle VTU$.
 By the reflexive property, $\overline{TV} \cong \overline{VT}$. Thus,
 $\triangle STV \cong \triangle UVT$ by ASA.

3. Write as a 2 column proof.

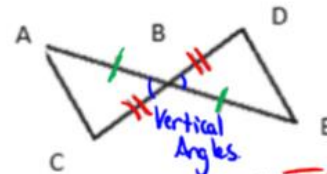
Given that $\angle ABC \cong \angle CDA$ and $\overline{AB} \cong \overline{CD}$
 Prove that $\triangle ABC \cong \triangle CDA$



Statement	Reason
$\angle ABC \cong \angle CBA$	Given
$\overline{AB} \cong \overline{CD}$	Given
$\overline{AC} \cong \overline{CA}$	Reflexive Property
$\triangle ABC \cong \triangle CDA$	HL

4. Write as a paragraph proof.

Given that $\overline{AB} \cong \overline{EB}$ and $\overline{CB} \cong \overline{DB}$
 Prove that $\triangle ABC \cong \triangle EBD$



It is given, $\overline{AB} \cong \overline{EB}$ and $\overline{CB} \cong \overline{DB}$.
 By the vertical angles theorem, $\angle ABC \cong \angle EBD$.
 Thus $\triangle ABC \cong \triangle EBD$ by SAS.

Complete the following proofs write any way you would prefer.

5. Given: $\angle JFH \cong \angle GHF$ and $\overline{FJ} \cong \overline{HG}$

Prove: $\overline{FG} \cong \overline{JH}$

Statement	Reason
$\angle JFH \cong \angle GHF$	Given
$\overline{FJ} \cong \overline{HG}$	Given
$\overline{FH} \cong \overline{HF}$	Reflexive Prop.
$\triangle JFH \cong \triangle GHF$	SAS
$\overline{FG} \cong \overline{JH}$	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
$\angle BAC \cong \angle DCA$	Alt. Int. Ang. Thm.
$\overline{AC} \cong \overline{CA}$	Reflexive Prop.
$\triangle ABC \cong \triangle CDA$	AAS
$\overline{BC} \cong \overline{DA}$	CPCTC

7. Given: \overline{BQ} bisects $\angle KQA$ and $\overline{QK} \cong \overline{QA}$

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

Statement	Reason
\overline{BQ} bisects $\angle KQA$	Given
$\overline{QK} \cong \overline{QA}$	Given
$\overline{QB} \cong \overline{QB}$	Reflexive prop.
$m\angle KQB = m\angle AQB$	Def. of bisect
$\angle KQB \cong \angle AQB$	Def. of cong.
$\triangle KQB \cong \triangle AQB$	SAS
$\overline{KB} \cong \overline{AB}$	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 midpoint of \overline{OR}	Given
$\overline{OP} \cong \overline{RP}$	Def. of midpoint
$\triangle SRP \cong \triangle NOP$	HL
$\angle OPN \cong \angle RPS$	CPCTC