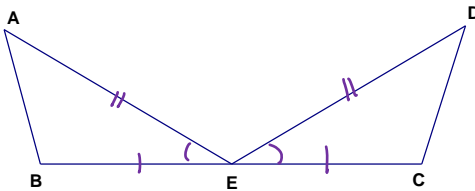


GEOMETRY-G
PROOF HOMEWORK

NAME Key

Mark each diagram based on the given information and fill in the mini - proof:

1.



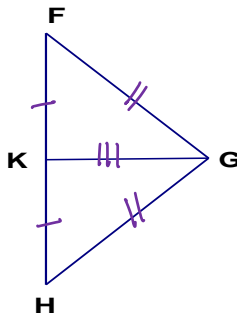
Given: E is the midpoint of \overline{BC}

$$\overline{AE} \cong \overline{DE}$$

$$\angle AEB \cong \angle DEC$$

Prove: $\triangle ABE \cong \triangle DCE$ by SAS

2.

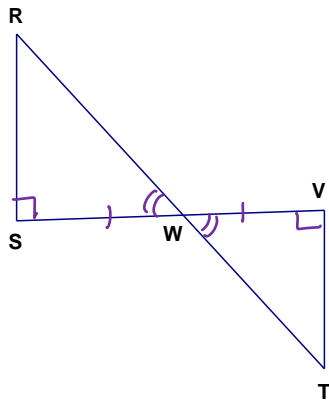


Given: K is the midpoint of \overline{FH}

$$\overline{FG} \cong \overline{HG}$$

Prove: $\triangle FKG \cong \triangle HKG$ by SSS

3.

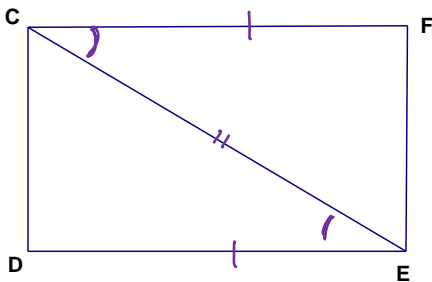


Given: $\overline{RS} \perp \overline{SV}$, $\overline{TV} \perp \overline{SV}$

W is the midpoint of \overline{SV}

Prove: $\triangle RSW \cong \triangle TVW$ by ASA

4.



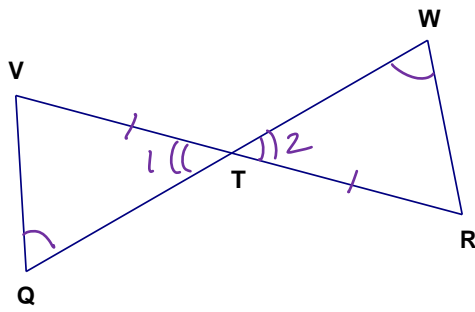
Given: $\overline{FC} \cong \overline{ED}$

$$\angle FCE \cong \angle DEC$$

Prove: $\triangle CDE \cong \triangle EFC$

statements	reasons
1. $\overline{FC} \cong \overline{ED}$	1. Given
2. $\angle FCE \cong \angle DEC$	2. Given
3. $\overline{EC} \cong \overline{EC}$	3. reflexive prop
4. $\triangle CDE \cong \triangle EFC$	4. SAS

5.

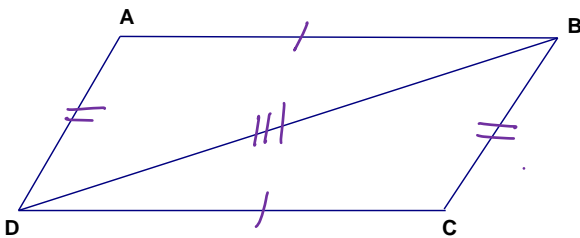


Given: T is the midpoint of \overline{VR}
 $\angle W \cong \angle Q$

Prove: $\triangle VTQ \cong \triangle RTW$

statements	reasons
1. T is midpt \overline{VR}	1. Given
2. $\angle W \cong \angle Q$	2. Given
3. $\angle 1 \cong \angle 2$	3. VAs \cong
4. $\overline{VT} \cong \overline{TR}$	4. def. of midpt
5. $\triangle VTR \cong \triangle RTW$	5. AAS

6.



Given: $\overline{AB} \cong \overline{CD}$
 $\overline{AD} \cong \overline{BC}$

Prove: $\triangle ABD \cong \triangle CDB$

statements	reasons
1. $\overline{AB} \cong \overline{CD}$	1. Given
2. $\overline{AD} \cong \overline{BC}$	2. Given
3. $\overline{BD} \cong \overline{BD}$	3. reflexive prop
4. $\triangle ABD \cong \triangle CDB$	4. SSS