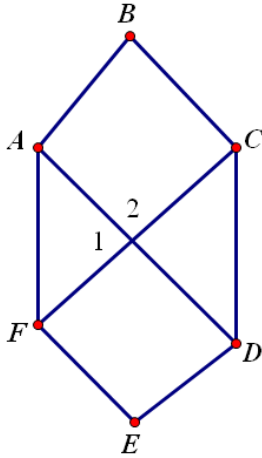


Complete each two-column proof.

1. Given: $\angle 1 \cong \angle 2$

Prove: $\overline{AD} \perp \overline{FC}$

Hint: Identify & use supplementary angles.

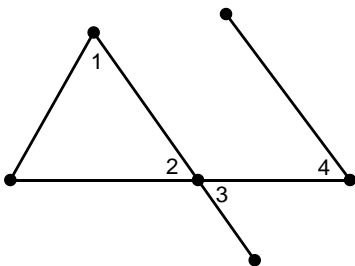


Statements	Reasons
1.	1.
2.	2.
3.	3.
4.	4.

2. Given: $\angle 1 \cong \angle 3$

Prove: $\angle 1 \cong \angle 2$

Hint: Identify and use vertical angles.

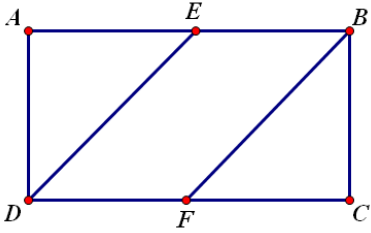


Statements	Reasons
1.	1.
2.	2.
3.	3.
4.	4.

3. Given: $\overline{AE} \cong \overline{CF}$
 \overline{DE} bisects \overline{AB} at E
 \overline{BF} bisects \overline{DC} at F

Prove: $\overline{EB} \cong \overline{DF}$

Hint: Use the "Rain-Bo" connection for each bisector and think about how to link the two conclusions.

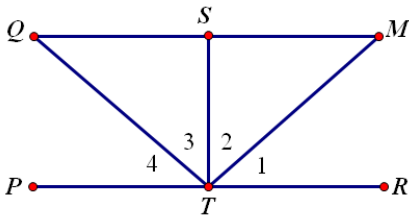


Statements	Reasons
1. \overline{DE} bisects \overline{AB} at E	1.
2. E midpt. Of \overline{AB}	2.
3. $\overline{AE} \cong \overline{EB}$	3.
4. \overline{BF} bisects \overline{DC} at F	4.
5. F midpt. Of \overline{CD}	5.
6. $\overline{CF} \cong \overline{DF}$	6.
7. $\overline{AE} \cong \overline{CF}$	7.
8. $\overline{EB} \cong \overline{CF}$ (b.c. of #3 & #7)	8.
9. $\overline{EB} \cong \overline{DF}$ (b.c. of #6 & #8)	9.

4. Given: $\overline{ST} \perp \overline{PR}$
 \overline{ST} bisects $\angle QTM$

Prove: $\angle 1 \cong \angle 4$

Hint: Identify and use complementary angles.



Statements	Reasons