Geometry R – Mr. Bo
Unit 3 – Day 5 HW

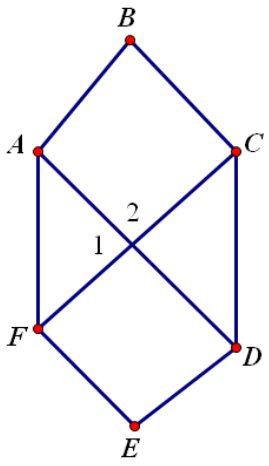
Name:_____
Date:_____

Complete each two-column proof.

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

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

Hint: Identify & use supplementary angles.

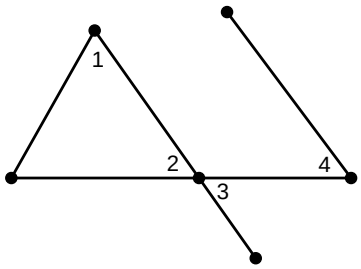


Statements	Reasons
1.	1.
2.	2.
3.	3.
4.	4.

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

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

Hint: Identify and use vertical angles.

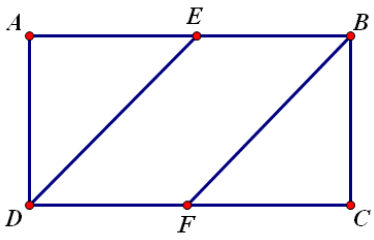


Statements	Reasons
1.	1.
2.	2.
3.	3.
4.	4.

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

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

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

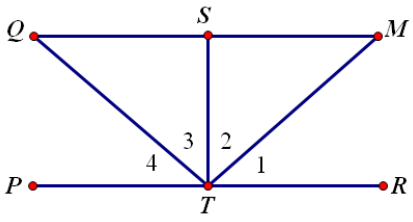


Statements	Reasons

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