LEARNING TARGETS

- I can identify corresponding parts of congruent triangles.
- I can use CPCTC to prove sides and angles are congruent in triangles.

Given $\triangle MPO \cong \triangle RST$, complete the following statements:

1. $\angle P \cong \angle$_____   4. $\overline{MO} \cong$ _____

2. $\angle T \cong \angle$_____   5. $\overline{SR} \cong$ _____

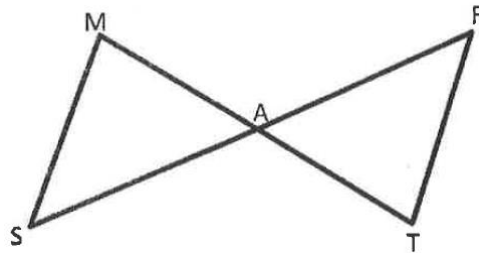3. $\angle R \cong \angle$_____   6. $\overline{ST} \cong$ _____

When you know triangles are congruent, and you state that corresponding parts are congruent (like you just did when you answered questions 1 – 6 above), you are using a property called **CPCTC**, which is a quick and easy way of saying :

C_____

P_____

C_____

T_____

C_____

Example 1 :

Given : A is the midpoint of $\overline{MT}$ and $\overline{SR}$

Prove : $\angle M \cong \angle T$

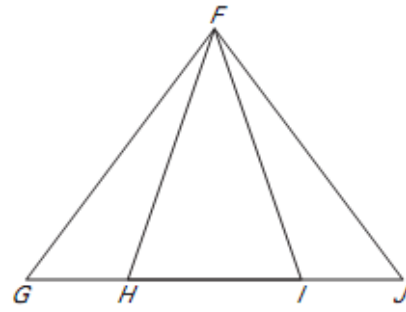| Statements	Reasons
1. A is the midpoint of $\overline{MT}$	1.
2.	2.
3. A is the midpoint of $\overline{SR}$	3.
4.	4.
5.	5.
6. $\triangle MAS \cong \triangle TAR$	6.
7.	7.

Example 2 :

Given : $\overline{FG} \cong \overline{FJ}$, $\overline{HG} \cong \overline{IJ}$

Prove : $\overline{HF} \cong \overline{IF}$
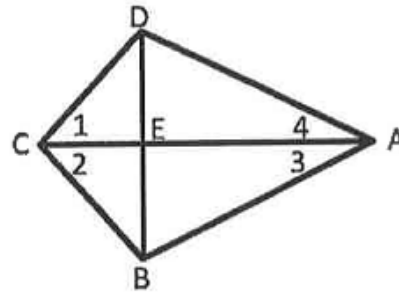

Statements	Reasons
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.

Example 3 :

Given : $\angle 1 \cong \angle 2$, $\angle 3 \cong \angle 4$
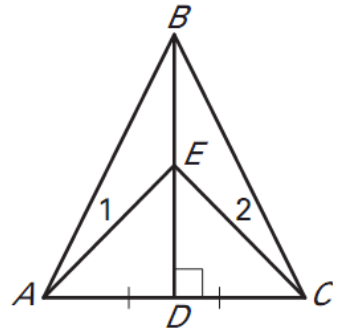
Prove : $\triangle BCE \cong \triangle DCE$

Statements	Reasons
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.
8.	8.

Example 4 :

Given: $\overline{AD} \cong \overline{CD}$, $\angle BDC$ and $\angle BDA$ are right angles, $\angle BEA \cong \angle BEC$

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

Statements	Reasons
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.
8.	8.
9.	9.