

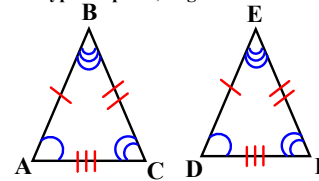
4-3 Congruent Triangles

Congruent Triangles

Two Triangles are considered congruent if all the parts of one triangle are congruent to all the corresponding parts of another.

PARTS:

- Triangles have two types of parts; angles and sides



Congruence Statement

- Once it has been determined that two triangles are congruent, a congruence statement can be written.

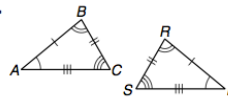
SAMPLE of CONGRUENCE STATEMENT

$$\triangle ABC \cong \triangle DEF$$

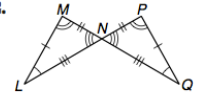
(This statement states Triangle ABC is congruent to Triangle DEF.)

Identify the congruent triangles in each figure.

1.



2.



CPCTC

Corresponding Parts of Congruent Triangles are Congruent

$$\triangle ABC \cong \triangle DEF$$

- Since the two triangles are congruent, you can conclude that all their corresponding parts (angles and sides) are congruent because of CPCTC.

<u>ANGLES</u>	<u>SIDES</u>
$\angle A \cong \angle D$	$AB \cong DE$
$\angle B \cong \angle E$	$BC \cong EF$
$\angle C \cong \angle F$	$AC \cong DF$