

Congruent Triangles

Congruent: same size, shape, and measure. ($\cong$)

Corresponding: _____ or in the same position.

Congruence Statement: an equation showing the parts that are _____.

Fill in the blanks:

CPCTC is all about matching:

C: _____

P: _____ in

C: _____

T: _____ are

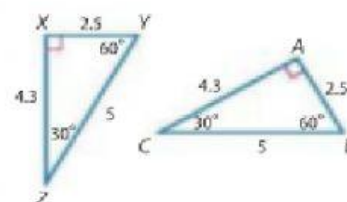
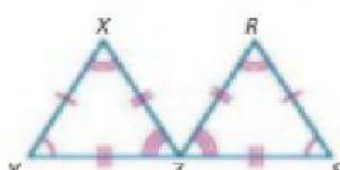
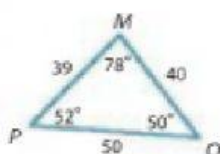
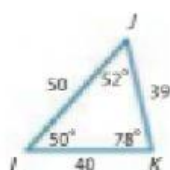
C: _____

Are the following triangles congruent? Justify your answer with congruence equations for the corresponding angles and sides.

A. LJK = _____

B. RSZ = _____

C. ABC = _____



Angles

Sides

Angles

Sides

Angles

Sides

L =

LJ =

Y =

YX =

X =

YX =

J =

JM =

X =

XZ =

Y =

ZY =

K =

KM =

Z =

ZY =

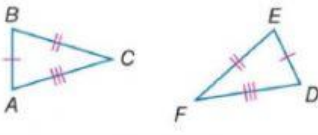
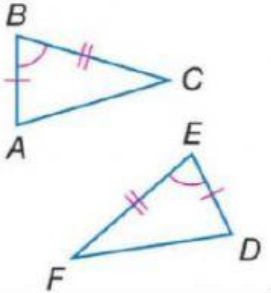
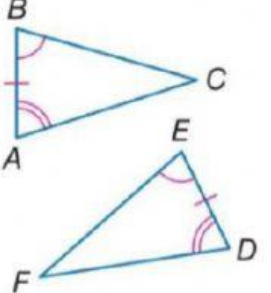
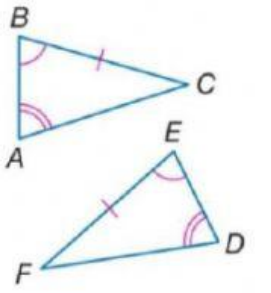
Z =

XZ =

When stating triangles congruent the order of the name does matter!!!

There are ____ congruence theorems.

Which theorem is only for right triangles? _____

<u>Postulate or Theorem</u>	<u>Meaning</u>	<u>Example</u> Only match marked parts	<u>Corresponding Angles</u>	<u>Corresponding Sides</u>
<u>SSS</u>	Triangles are congruent if all 3 _____ are congruent.		No marks parts	AB = BC = CA =
<u>SAS</u>	Triangles are congruent if 2 _____ and the angle _____ them are congruent.		B =	AB = BC =
<u>ASA</u>	Triangles are congruent if 2 _____ and the side _____ them are congruent.		A = B =	AB =
<u>AAS</u>	Triangles are congruent if 2 angles and the side after or before them are congruent.		A = B =	BC =

Name : _____

Congruence Statements

Sheet 1

A) Complete each congruence statement.

1) $\triangle DEF \cong \triangle YXZ$

$\overline{EF} \cong$ _____

2) $\triangle LMN \cong \triangle PQR$

$\angle M \cong$ _____

3) $\triangle ABC \cong \triangle FGH$

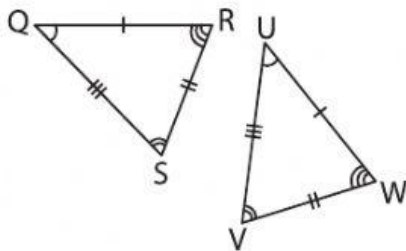
$\angle F \cong$ _____

4) $\triangle STU \cong \triangle XYZ$

$\overline{ST} \cong$ _____

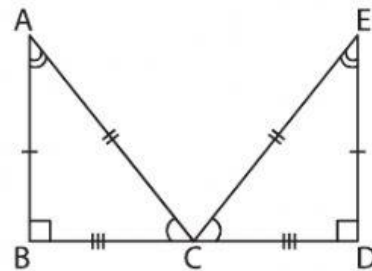
B) Complete each congruence statement.

5)



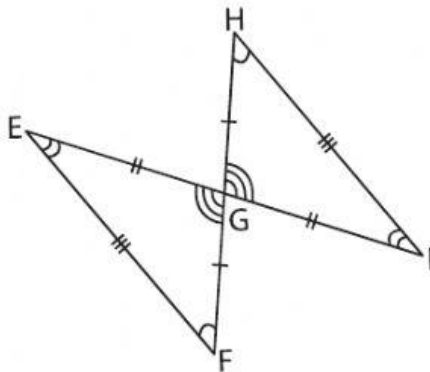
$\angle Q \cong$ _____

6)



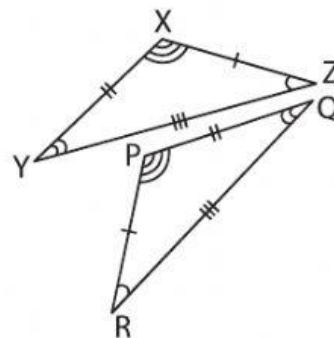
$\overline{AB} \cong$ _____

7)



$\overline{HI} \cong$ _____

8)



$\angle X \cong$ _____

9) If the triangles QRS and BCD are congruent, what is the corresponding part of $\overline{SQ}$?

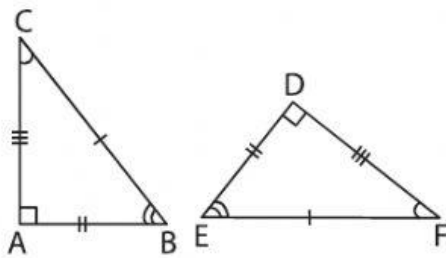
Name : _____

Congruence Statements

Sheet 1

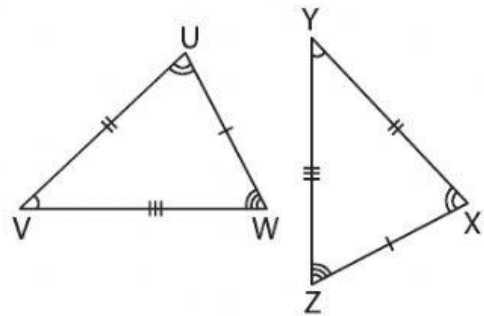
Complete the congruence statement for each pair of triangles.

1)



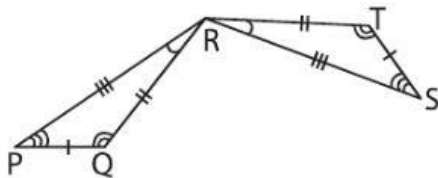
$\triangle ABC \cong$ _____

2)



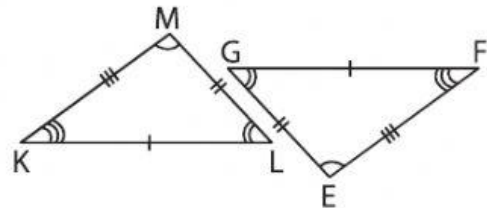
$\triangle UVW \cong$ _____

3)



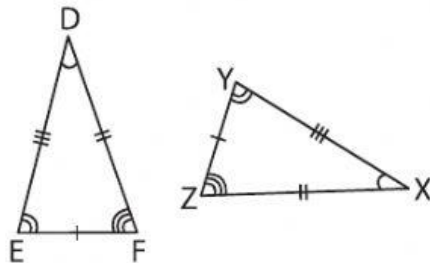
$\triangle PQR \cong$ _____

4)



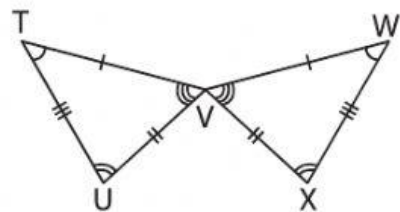
$\triangle KLM \cong$ _____

5)



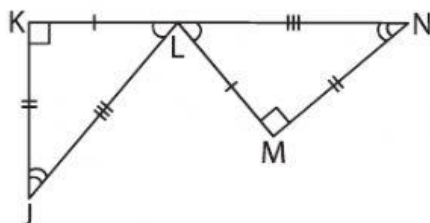
$\triangle DEF \cong$ _____

6)



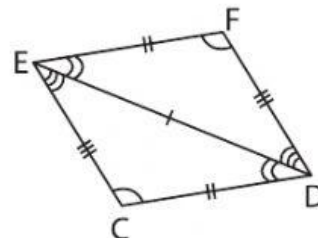
$\triangle TUV \cong$ _____

7)



$\triangle JKL \cong$ _____

8)



$\triangle CDE \cong$ _____