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:
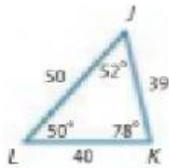
CPCTC is all about matching:

C:_____

P:_____ in

C:_____

T:_____ are

C:_____

Are the following triangles congruent? Justify your answer with congruence equations for the corresponding angles and sides.
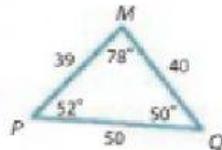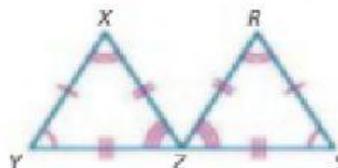
A. LJK = _____   **B.** RSZ = _____   **C.** ABC = _____
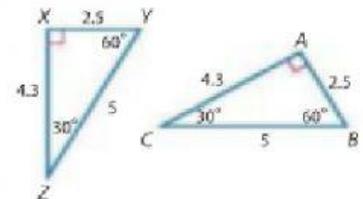
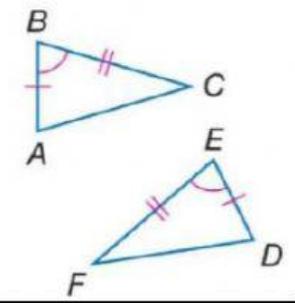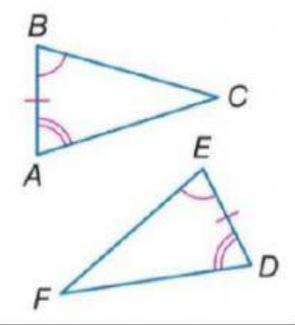| Angles	Sides	Angles	Sides	Angles	Sides
L =	LJ =	Y =	YX =	X =	YX =
J =	JM =	X =	XZ =	Y =	ZY =
K =	KM =	Z =	ZY =	Z =	XZ =

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

There are _____ congruence theorems.
Which theorem is only for right triangles? _____

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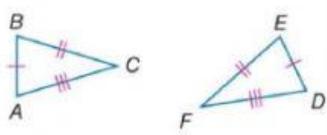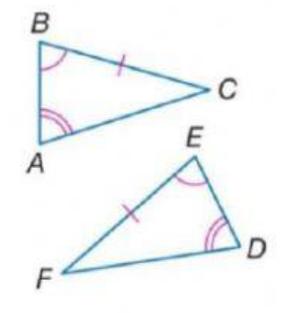
Congruence Statements

A) Complete each congruence statement.

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

$\overline{EF} \cong$ _____

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

$\angle M \cong$ _____

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

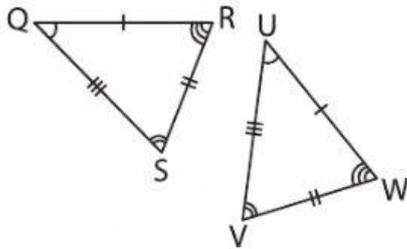$\angle F \cong$ _____

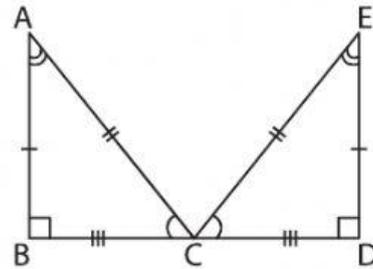4) $\triangle STU \cong \triangle XYZ$

$\overline{ST} \cong$ _____
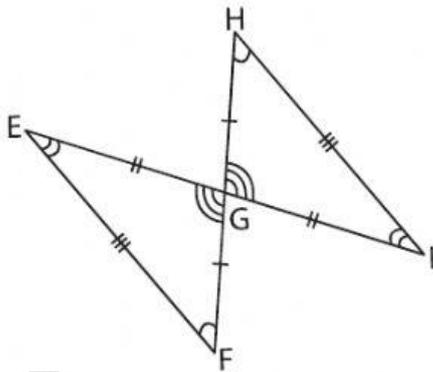
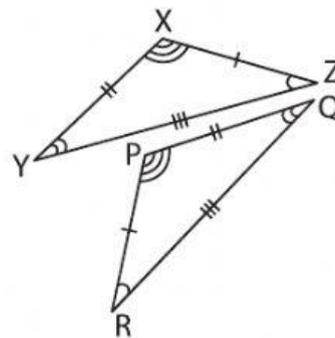**B)** Complete each congruence statement.

5)

$\angle Q \cong$ _____

6)

$\overline{AB} \cong$ _____

7)

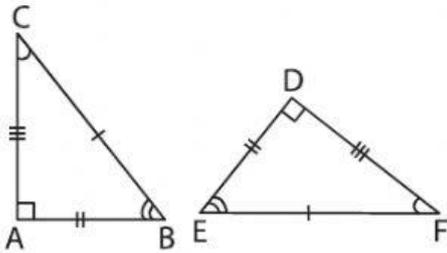

$\overline{HI} \cong$ _____

8)

$\angle X \cong$ _____

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

_____

Congruence Statements

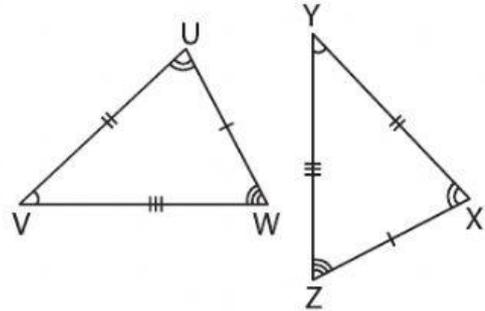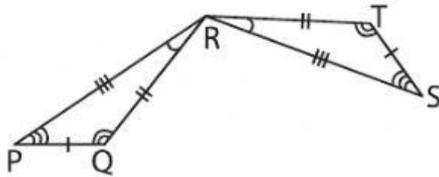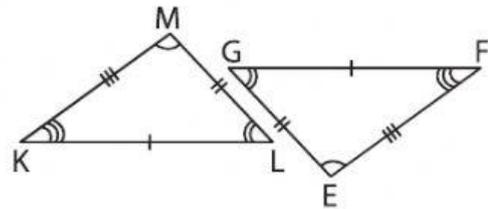Complete the congruence statement for each pair of triangles.

1)

ΔABC ≅ _____

2)

ΔUVW ≅ _____

3)

ΔPQR ≅ _____

4)

ΔKLM ≅ _____

5)

ΔDEF ≅ _____

6)

ΔTUV ≅ _____

7)

ΔJKL ≅ _____

8)

ΔCDE ≅ _____