Unit 3-Triangles Notes-3 **Name:** Notes

Congruence and Triangles:

Two figures are Congruent if they have the same Sides and Angles

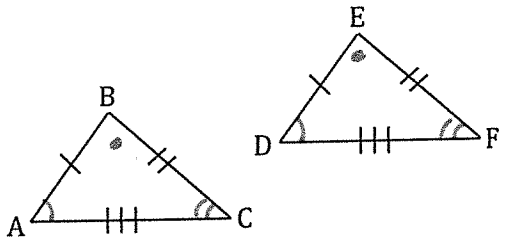
When two figures are Congruent, there is a Correspondence between its sides and angles .

When name Corresponding parts you must name them in Order.

Corresponding Parts

Example One:

Corresponding Angles	Corresponding Sides
$\angle BAC \cong \angle EDF$	$\overline{AB} \cong \overline{DE}$
$\angle ABC \cong \angle DEF$	$\overline{BC} \cong \overline{EF}$
$\angle BCA \cong \angle EFD$	$\overline{AC} \cong \overline{DF}$



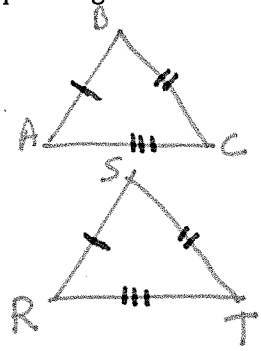
Give the congruence statement three different ways.

① $\triangle ABC \cong \triangle DEF$

② $\triangle CBA \cong \triangle FED$

③ $\triangle BAC \cong \triangle EDF$

Given $\Delta ABC \cong \Delta RST$, list all of the corresponding sides and angles that are congruent.



Corresponding Angles

$\angle A \cong \angle R$

$\angle B \cong \angle S$

$\angle C \cong \angle T$

Corresponding Sides

$\overline{AB} \cong \overline{RS}$

$\overline{BC} \cong \overline{ST}$

$\overline{AC} \cong \overline{RT}$

Example Two:

If $\Delta ABC \cong \Delta TUV$, then complete the following statements.

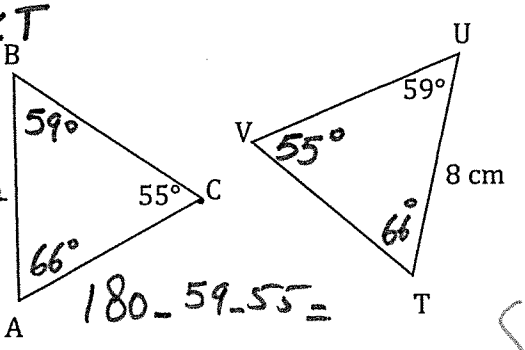
a. $\angle A \cong$ 66° $\angle T$

b. $\overline{VT} \cong$ _____

c. $\Delta VTU \cong$ _____

d. BC = _____

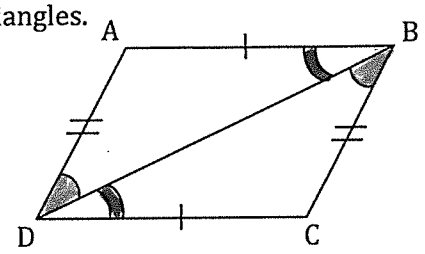
e. $m\angle A =$ 66°



180 − 59 − 55 =

Example Three:

Write the congruence statement for the triangles.



$\overline{AD} \cong \overline{CB}$

$\overline{AB} \cong \overline{CD}$

$\overline{DB} \cong \overline{DB}$ shared side

$\angle ADB \cong \angle CBD$.

$\angle BDC \cong \angle DBA$

$\Delta ABD \cong \Delta CDB$

Example Four:

$\Delta KJL \cong \Delta DCB$ Solve for x and y.