

DO NOW

In the diagram, $\triangle ABC \cong \triangle DEF$. Complete each statement below.

a) $\overline{BC} \cong \underline{\overline{EF}}$

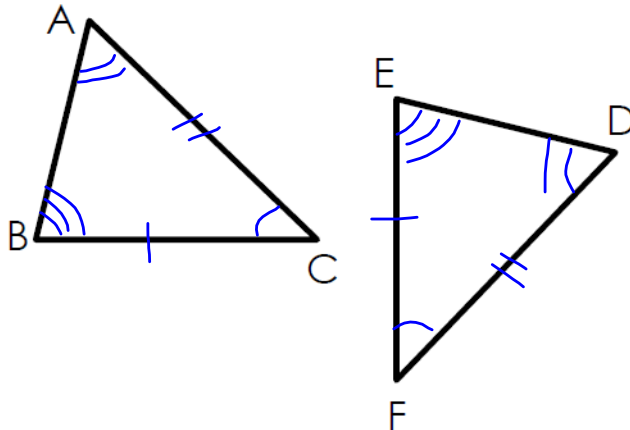
b) $\angle F \cong \underline{\angle C}$

c) $\angle A \cong \underline{\angle D}$

d) $m\angle E = \underline{m\angle B}$

e) $DF = \underline{AC}$

f) $\triangle ACB \cong \underline{\triangle DFE}$



Nov 30-10:04 AM

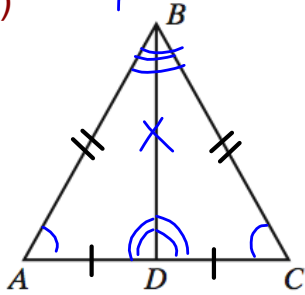
Corresponding **P**arts of **C**ongruent
Triangles are **C**ongruent (CPCTC)

- Triangles must be proven congruent first using SSS, SAS, ASA, AAS or HL
- Then CPCTC is used to prove that two line segments or two angles are congruent

Nov 4-3:13 PM

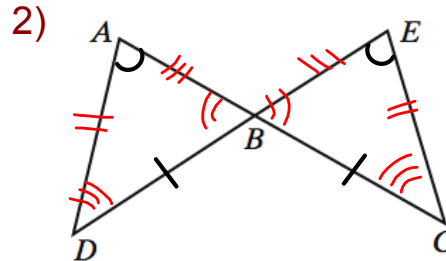
- (a) Name two triangles that are congruent
 (b) State the reason why the triangles are congruent
 (c) Name three additional pairs of corresponding parts in the given congruent triangles.

$\triangle ABD \cong \triangle CBD$
 1) by SSS



$\angle A \cong \angle C$
 $\angle ADB \cong \angle CDB$
 $\angle ABD \cong \angle CBD$

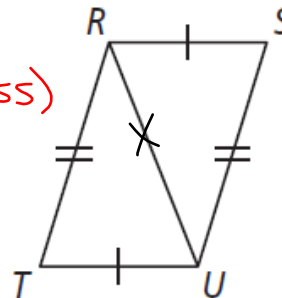
$\triangle ADB \cong \triangle ECB$ by AAS



$\angle D \cong \angle C$
 $\overline{AD} \cong \overline{EC}$
 $\overline{AB} \cong \overline{EB}$

Nov 4-3:10 PM

Given: $\overline{RS} \cong \overline{UT}$, $\overline{RT} \cong \overline{US}$
 Prove $\triangle RUT \cong \triangle URS$ FIRST! (by SSS)
Prove: $\angle T \cong \angle S$

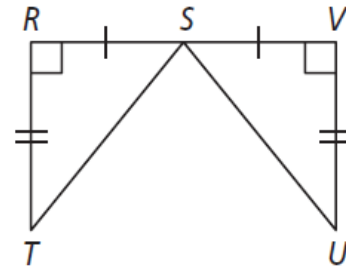


Statements	Reasons
1) $\overline{RS} \cong \overline{UT}$, $\overline{RT} \cong \overline{US}$	1) Given
2) $\overline{RU} \cong \overline{RU}$	2) Reflexive Property
3) $\triangle RUT \cong \triangle URS$	3) SSS
4) $\angle T \cong \angle S$	4) CPCTC

Nov 4-3:23 PM

Given: $\overline{RS} \cong \overline{VS}$, $\overline{RT} \cong \overline{VU}$, $\angle R$ and $\angle V$ are both right angles.

Prove: $\overline{ST} \cong \overline{SU}$ → First prove $\triangle TRS \cong \triangle UVS$ by SAS



Statements	Reasons
1) $\overline{RS} \cong \overline{VS}$, $\overline{RT} \cong \overline{VU}$ and $\angle R$ and $\angle V$ are right \angle 's	1) Given
2) $\angle R \cong \angle V$	2) All right \angle 's are \cong
3) $\triangle TRS \cong \triangle UVS$	3) SAS
4) $\overline{ST} \cong \overline{SU}$	4) CPCTC

Nov 4-3:21 PM