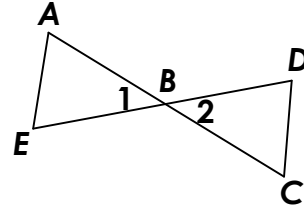


CPCTC Practice

Informal Proofs

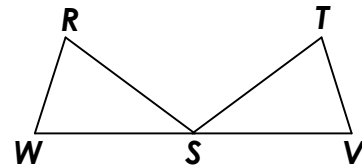
1. **Given:** $\overline{AB} \cong \overline{CB}$, $\overline{EB} \cong \overline{DB}$

- a) Mark the triangles.
- b) What other corresponding parts are congruent?
- c) Why are the triangles congruent?
- d) Why is $\overline{AE} \cong \overline{CD}$?



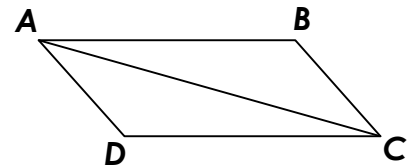
2. **Given:** $\angle R \cong \angle T$, $\angle W \cong \angle V$, $\overline{RW} \cong \overline{TV}$

- a) Mark the triangles.
- b) Why are the triangles congruent?
- c) Why is $\angle RSW \cong \angle TSV$?



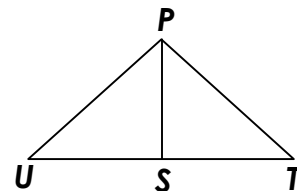
3. **Given:** $\overline{AB} \cong \overline{CD}$, $\angle BAC \cong \angle DCA$

- a) Mark the triangles.
- b) What other corresponding parts are congruent?
- c) Why are the triangles congruent?
- d) Why is $\overline{AD} \cong \overline{CB}$?



4. **Given:** $\overline{PU} \cong \overline{PT}$, $\angle UPS \cong \angle TPS$

- a) Mark the triangles.
- b) What other corresponding parts are congruent?
- c) Why are the triangles congruent?
- d) Why is $\overline{US} \cong \overline{TS}$?



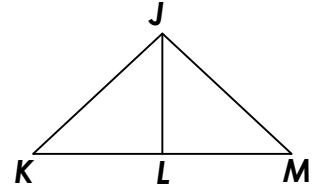
Circle the correct answer choice.

9. Which of the following is not valid for proving that triangles are congruent?

- A) HL B) AAA C) ASA D) SAS

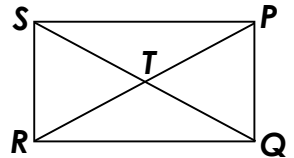
5. If $\triangle JKL \cong \triangle JML$, what reason justifies the statement $\angle LKJ \cong \angle LMJ$?

- A) Definition of bisects C) ASA
B) CPCTC D) Reflexive Property



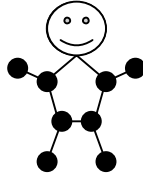
6. What information would allow you to prove $\triangle RST \cong \triangle PQT$ by SAS?

- A) T is the midpoint of \overline{SQ} . C) T bisects \overline{SQ} .
B) T is the midpoint of \overline{RP} . D) T bisects both \overline{SQ} and \overline{RP} .



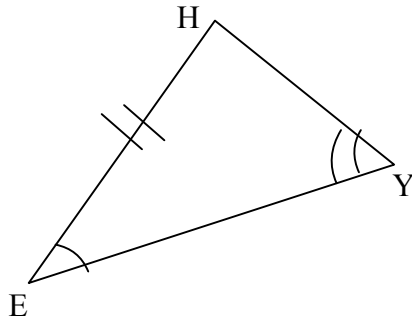
7. Given: $\triangle DEF$ and $\triangle HJK$. To use CPCTC to prove $\angle F \cong \angle K$, you must first prove $\triangle DEF \cong \triangle HJK$.

- A) True B) False

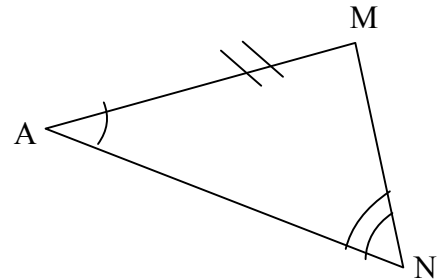


#8: $\triangle HEY$ is congruent to $\triangle MAN$ by _____.

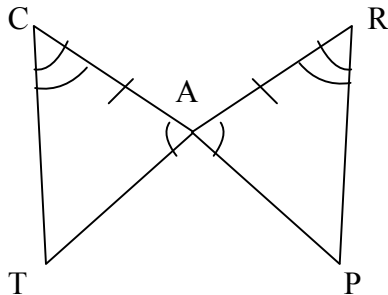
What **other** parts of the triangles are congruent by **CPCTC**?



_____ \cong _____
 _____ \cong _____
 _____ \cong _____



#9:



$\triangle CAT \cong$ _____, by _____

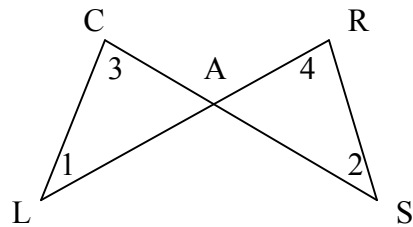
THEREFORE:

_____ \cong _____, by CPCTC
 _____ \cong _____, by CPCTC
 _____ \cong _____, by CPCTC

#10:

Given: $\overline{AC} \cong \overline{AR}$ and $\angle 1 \cong \angle 2$

Prove: $\angle 3 \cong \angle 4$



Proof:

1. $\overline{AC} \cong \overline{AR}$

2. _____

3. $\angle CAL \cong \angle RAS$

4. $\triangle LCA \cong \triangle RSA$

5. $\angle 3 \cong \angle 4$

1. _____

2. Given

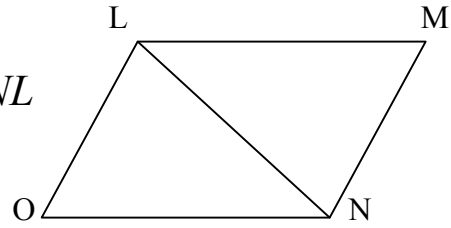
3. _____

4. _____

5. _____

#11:

Given: $\angle NLM \cong \angle LNO$ and $\angle OLN \cong \angle MNL$
Prove: $\angle M \cong \angle O$



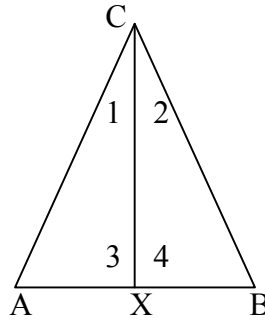
Proof:

1. $\angle NLM \cong \angle LNO$
2. _____
3. _____
4. $\triangle LMN \cong \triangle$ _____
5. _____

1. _____
2. Given
3. Reflexive Property of \cong
4. _____
5. _____

#12

Given: $\overline{AC} \cong \overline{BC}$ and $\overline{AX} \cong \overline{BX}$
Prove: $\angle 1 \cong \angle 2$



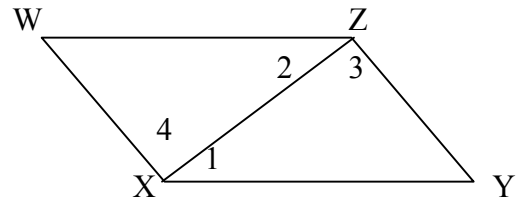
Proof:

1. _____
2. _____
3. $\triangle AXC \cong$ _____
4. _____

1. Given
2. Reflexive Prop. of Congruence
3. _____
4. _____

#13

Given: $\angle 1 \cong \angle 2$ and $\angle 3 \cong \angle 4$
Prove: $\overline{XY} \cong \overline{ZW}$



Proof:

1. _____
2. $\overline{XZ} \cong \overline{XZ}$
3. $\triangle XWZ \cong$ _____
4. _____

1. Given
2. _____
3. _____
4. _____

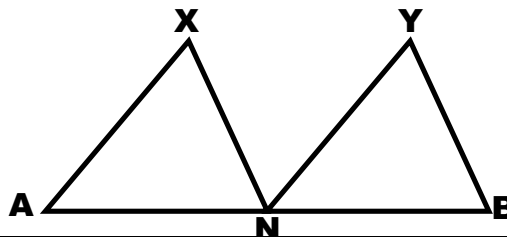
NAME _____ DATE _____ PER. _____

SSS, SAS, & ASA PROOFS w/CPCTC

14. GIVEN: N is the midpoint of \overline{AB}

$$\overline{AX} \cong \overline{NY}$$

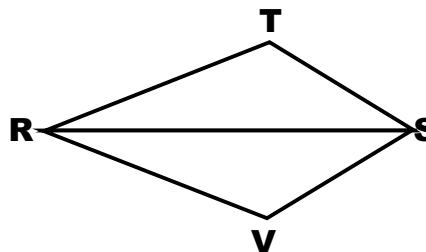
$$\overline{NX} \cong \overline{BY}$$

PROVE: $\angle X \cong \angle Y$ 

STATEMENTS	REASONS

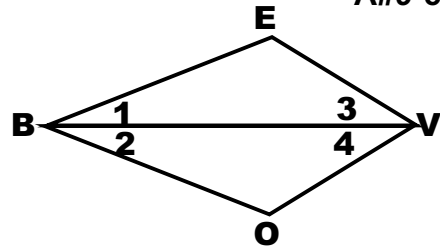
15. GIVEN: $\overline{RT} \cong \overline{RV}$

$$\overline{TS} \cong \overline{VS}$$

PROVE: $\angle RST \cong \angle RSV$ 

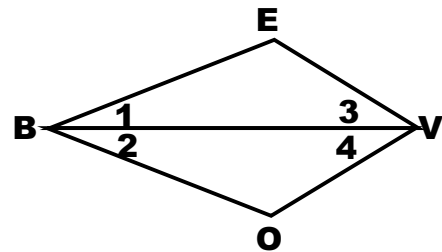
STATEMENTS	REASONS

16. GIVEN: \overrightarrow{BV} bisects $\angle EBO$
 $\overline{BE} \cong \overline{BO}$
 PROVE: $\triangle BEV \cong \triangle BOV$



STATEMENTS	REASONS

17. GIVEN: \overrightarrow{VB} bisects $\angle EVO$
 \overrightarrow{BV} bisects $\angle EBO$
 PROVE: $\angle E \cong \angle O$



STATEMENTS	REASONS