

Section #1: Vocabulary (words and/or diagrams)

Reflexive property	Addition property of equality
Subtraction property of equality	Substitution property

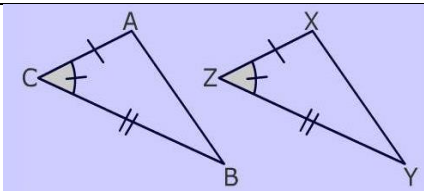
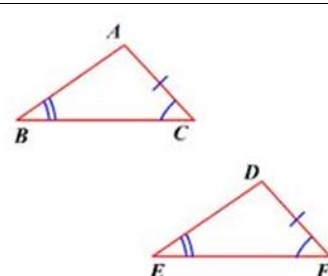
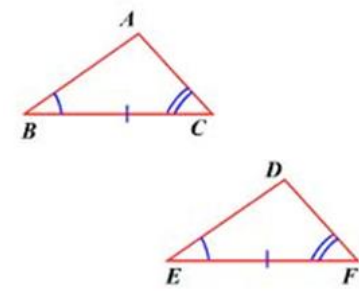
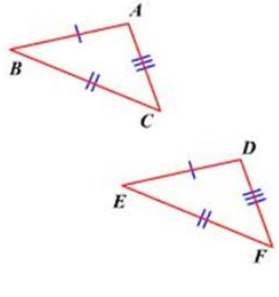
Section #2: Formulas/Equations/Theorems

- Which transformations will result in yielding congruent triangles?

_____ , _____ , _____

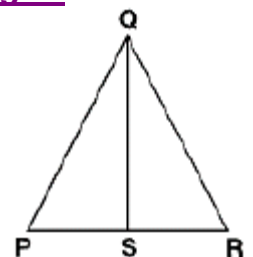
What do we call this group of transformations? _____

- Write the 4 Triangle Congruence Theorems that match each diagram:

- What is the special congruence theorem you may use to prove right triangles are congruent? _____

Label the diagram:
 Given: $\overline{PQ} \cong \overline{RQ}$
 $\overline{QS} \perp \overline{PR}$
 Prove: $\triangle PQS \cong \triangle RQS$



- CPCTC means _____

Write out each:

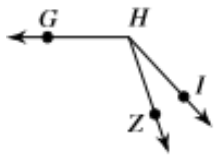
- Isosceles triangle theorem

- Converse of isosceles triangle theorem

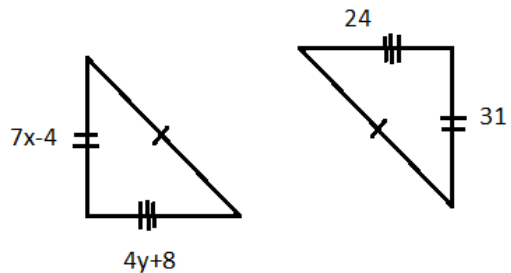
Section #3: Key methods and concepts

1) YOU MUST SHOW WORK TO RECEIVE CREDIT!!!!

- a) $m\angle ZHG = 11x - 1$, $m\angle IHZ = 24^\circ$,
and $m\angle IHG = 12x + 13$. Find $m\angle IHG$.



- b) Solve for x and y.



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$x=5$

$y=4$

- 2) Given: \overline{ABCD} with $AB \cong CD$

Prove: $AC \cong BD$



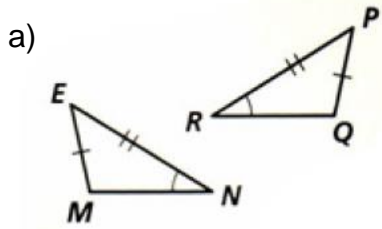
Statements

1. \overline{ABCD} with $AB \cong CD$
2. $CB \cong CB$
3. $\overline{AB} + \overline{BC} \cong \overline{CD} + \overline{BC}$
4. $\overline{AB} + \overline{BC} \cong \overline{AC}$
 $\overline{CD} + \overline{BC} \cong \overline{BD}$
5. $AC \cong BD$

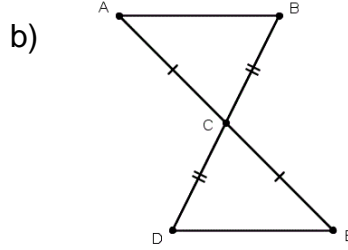
Reasons

1. Given
- 2.
- 3.
- 4.
- 5.

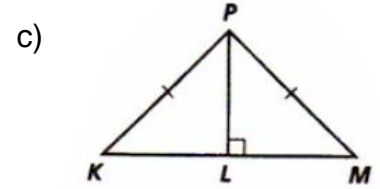
3) Write a triangle congruence theorem that may be used to prove the triangles congruent or **write "none"**.



_____ congruence theorem



_____ congruence theorem

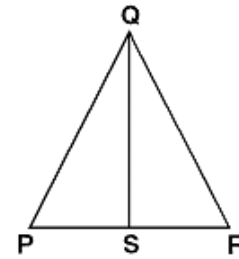


_____ congruence theorem

4) Complete the 2 column proof:

Given: $\overline{QS} \perp \overline{PR}$ and \overline{QS} bisects $\angle PQR$

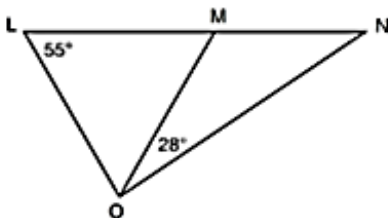
Prove: $\overline{PS} \cong \overline{RS}$



Statements	Reasons
1) $\overline{QS} \perp \overline{PR}$ and \overline{QS} bisects $\angle PQR$	1) Given
2) $m\angle PSQ = 90^\circ$ and $m\angle RSQ = 90^\circ$	2)
3)	3) All right angles are congruent.
4) $\angle PQS \cong \angle RQS$	4)
5)	5) Reflexive property
6) $\triangle PQS \cong \triangle RQS$	6)
7) $\overline{PS} \cong \overline{RS}$	7)

4) **YOU MUST SHOW WORK TO RECEIVE CREDIT!!!!**

In the diagram below, $\triangle LMO$ is isosceles with $LO = MO$.



If $m\angle L = 55$ and $m\angle NOM = 28$, what is $m\angle N$?

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