

Math 8 Q3 ASSIGNMENT 5: TRIANGLE CONGRUENCE

PART I: WRITE THE CAPITAL LETTER OF YOUR ANSWER ON THE BOX PROVIDED.

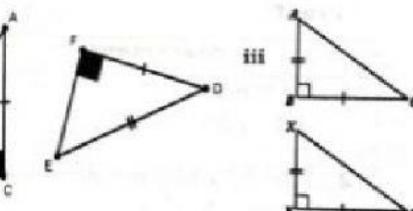
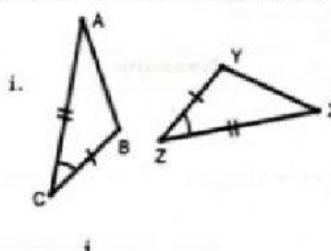
1. Which of the theorems below states that: "If two angles and a non-included side of one triangle are congruent to the corresponding two angles and a non-included side of another triangle, then the triangles are congruent."?

A. HyA Congruence Theorem C. LL Congruence Theorem
B. HyL Congruence Theorem D. AAS Congruence Theorem

2. Which of the following theorems states that: "If the hypotenuse and an acute angle of one right triangle are congruent to the corresponding hypotenuse and an acute angle of another right triangle, then the triangles are congruent."?

A. HyA Congruence Theorem C. LA Congruence Theorem
B. HyL Congruence Theorem D. LL Congruence Theorem

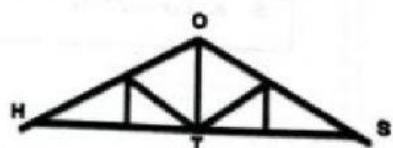
3. Which of the following pairs of triangles below are congruent and can be proved by SAS Congruence?



A. i and ii
B. ii and iii

C. iii
D. i, ii, and iii

4. In the figure at the right, \overline{OT} is a perpendicular bisector of \overline{HS} at T. What triangle congruence theorem can be used to prove that $\triangle HOT \cong \triangle SOT$?



A. LL Congruence Theorem
B. HyA Congruence Theorem

C. HyL Congruence Theorem
D. AAS Congruence Theorem

PART II. CHOOSE THE CAPITAL LETTER OF YOUR ANSWER FROM THE CHOICES TO COMPLETE THE PROOF OF THE TRIANGLE CONGRUENCE BELOW. WRITE YOUR ANSWER ON THE BOX PROVIDED.

Given: \overline{EU} is the \perp bisector of \overline{CT}
Prove: $\triangle CUE \cong \triangle TUE$

Figure No. 1



CHOICES:

A. LA Congruence Theorem	F. $\triangle CUE \cong \triangle TUE$
B. Definition of perpendicular bisector	G. $\overline{CU} \cong \overline{UT}$
C. LL Congruence Theorem	H. $\overline{CU} \cong \overline{EU}$
D. HyL Congruence Theorem	I. $\overline{EU} \cong \overline{EU}$
E. HyA Congruence Theorem	J. $\angle C \cong \angle T$

Statements	Reasons
1. \overline{EU} is the \perp bisector of \overline{CT}	1. Given
2. U is the midpoint of \overline{CT}	2.
3. 	3. Definition of Midpoint
4. $\angle CUE$ and $\angle TUE$ are right angles	4.
5. $\angle CUE \cong \angle TUE$	5. Right Angle Theorem
6. 	6. Reflexive Property
7. 	7.

Most often used postulates in Geometry :