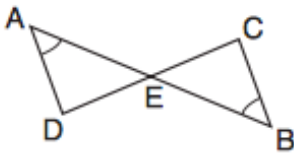
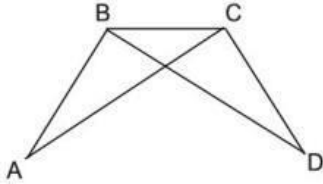
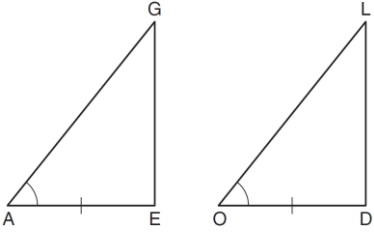
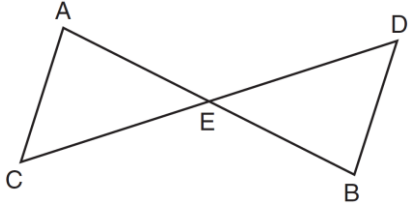
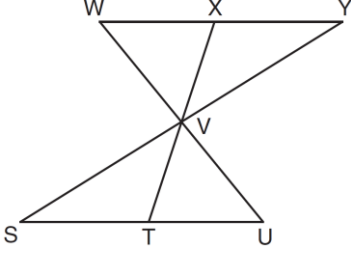


UNIT 3: TRIANGLE CONGRUENCY QUIZ REVIEW

<p>1. In the accompanying diagram, \overline{AB} and \overline{CD} intersect at E, E is the midpoint of \overline{AB}, and $\angle A \cong \angle B$.</p>  <p>Which statement can be used to prove $\triangle ADE \cong \triangle BCE$</p> <p>(1) ASA \cong ASA (3) SSS \cong SSS (2) HL \cong HL (4) SAS \cong SAS</p>	<p>2. Given: $\overline{AB} \cong \overline{DC}$ and $\angle A \cong \angle D$</p> <p>Which of the following methods can be used to prove that $\triangle ABC \cong \triangle DCB$?</p>  <p>(1) Side-Angle-Side (SAS) (2) Angle-Side-Angle (ASA) (3) Side-Side-Side (SSS) (4) There is insufficient information to determine if the triangles are congruent.</p>
<p>3. In the diagram below of $\triangle AGE$ and $\triangle OLD$, $\angle GAE \cong \angle LOD$, and $\overline{AE} \cong \overline{OD}$. To prove that $\triangle AGE$ and $\triangle OLD$ are congruent by SAS, what other information is needed?</p>  <p>(1) $\overline{GE} \cong \overline{LD}$ (2) $\overline{AG} \cong \overline{OL}$ (3) $\angle AGE \cong \angle OLD$ (4) $\angle AEG \cong \angle ODL$</p>	<p>4. In the diagram below, $\triangle AEC \cong \triangle BED$. Which statement is <i>not</i> always true?</p>  <p>(1) $\overline{AC} \cong \overline{BD}$ (2) $\overline{CE} \cong \overline{DE}$ (3) $\angle EAC \cong \angle EBD$ (4) $\angle ACE \cong \angle DBE$</p>
<p>5. Which statements could be used to prove that $\triangle ABC$ and $\triangle A'B'C'$ are congruent?</p> <p>(1) $\overline{AB} \cong \overline{A'B'}$, $\overline{BC} \cong \overline{B'C'}$, and $\angle A \cong \angle A'$ (2) $\overline{AB} \cong \overline{A'B'}$, $\angle A \cong \angle A'$, and $\angle C \cong \angle C'$ (3) $\angle A \cong \angle A'$, $\angle B \cong \angle B'$, and $\angle C \cong \angle C'$ (4) $\angle A \cong \angle A'$, $\overline{AC} \cong \overline{A'C'}$, and $\overline{BC} \cong \overline{B'C'}$</p>	<p>6. In the diagram below, $\triangle XYV \cong \triangle TSV$. Which statement can <i>not</i> be proven?</p>  <p>(1) $\angle XVY \cong \angle TVS$ (2) $\angle VYX \cong \angle VUT$ (3) $\overline{XY} \cong \overline{TS}$ (4) $\overline{YV} \cong \overline{SV}$</p>
<p>7. The line segment \overline{BD} is the median and altitude of $\triangle ABC$. Which of the following statements must be false?</p> <p>(1) \overline{BD} bisects \overline{AC}. (2) $\triangle BDA$ is a right triangle. (3) $m\angle A = 90$. (4) B is equidistant from A and C.</p>	<p>8. In $\triangle ABC$ and $\triangle DEF$, $\overline{AB} \parallel \overline{DE}$, & $\angle A \cong \angle D$. In order to prove $\triangle ABC \cong \triangle DEF$ using ASA, we need to prove that</p> <p>(1) $\angle B \cong \angle E$ (2) $\angle C \cong \angle F$ (3) $\overline{BC} \cong \overline{EF}$ (4) $\overline{AC} \cong \overline{DF}$</p>

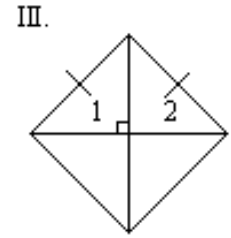
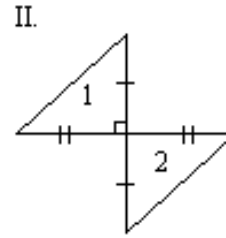
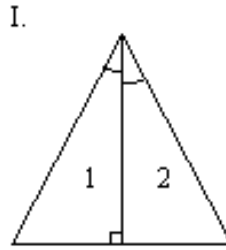
9. In which triangles could you efficiently prove $\Delta 1 \cong \Delta 2$ using the HL Theorem?

(a) II only

(b) III only

(c) II and III

(d) I only



10. Write the method that is being illustrated in the following triangles to prove congruency. Then, state if that is a valid method.

<p>i. </p>	<p>ii. </p>	<p>iii. </p>	<p>iv. </p>
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11. Describe method AND the rigid motion(s) which make the two triangles congruent:

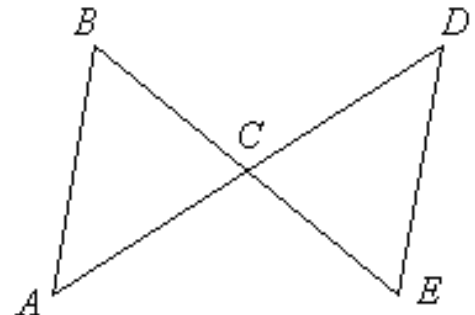
<p>a. $\Delta ABC \cong \Delta WER$</p>	<p>b. $\Delta ABD \cong \Delta CBD$</p>	<p>c. $\Delta THJ \cong \Delta RJH$</p>

12. Directions: Fill in the question marks in the proof below.

Given: $\overline{BC} \cong \overline{EC}$ & $\overline{AC} \cong \overline{DC}$

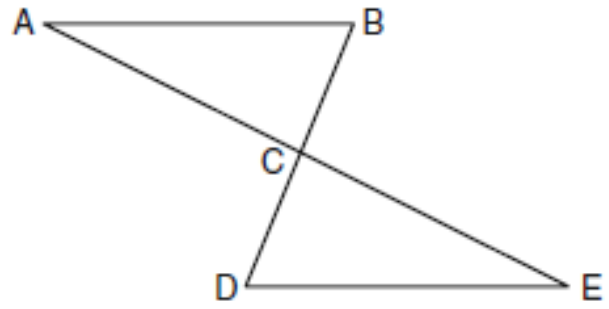
Prove: $\overline{BA} \cong \overline{ED}$

Statements	Reasons
1. $\overline{BC} \cong \overline{EC}$ $\overline{AC} \cong \overline{DC}$	1. given
2. $\angle BCA \cong \angle ECD$	2. Vertical angles are congruent.
3. $\Delta BCA \cong \Delta ECD$	3. ?
4. $\overline{BA} \cong \overline{ED}$	4. ?



13. Given: \overline{BD} and \overline{AE} bisect each other.

Prove: $\triangle ABC \cong \triangle EDC$

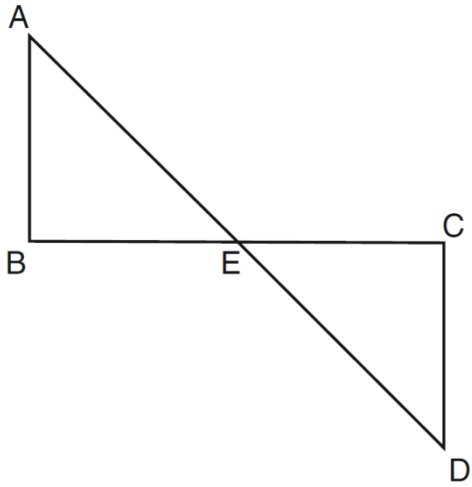


STATEMENTS

REASONS

(b) Describe the rigid motion(s) that would map one triangle onto the other.

14. Given: \overline{AD} bisects \overline{BC} at E , $\overline{AB} \perp \overline{BC}$, $\overline{DC} \perp \overline{BC}$
Prove: $\triangle ABE \cong \triangle DCE$

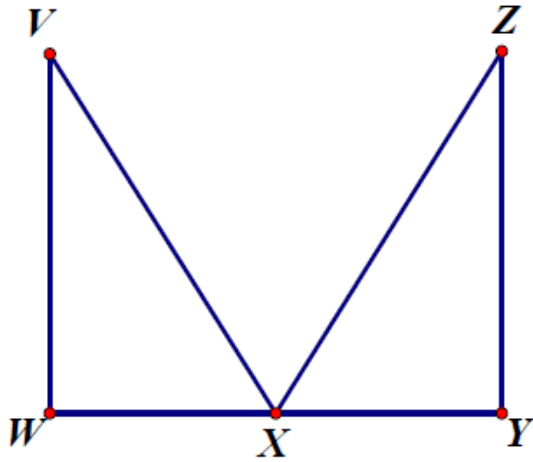


STATEMENT

REASON

- (b) Describe the rigid motion(s) that would map one triangle onto the other.

15. Given: $\overline{VW} \perp \overline{WX}$, $\overline{ZY} \perp \overline{YX}$, $\overline{VW} \cong \overline{ZY}$, X is the midpoint of \overline{WY} .
Prove: $\triangle VWX \cong \triangle ZYX$



STATEMENTS

REASONS

(b) Describe the rigid motion(s) that would map one triangle onto the other.