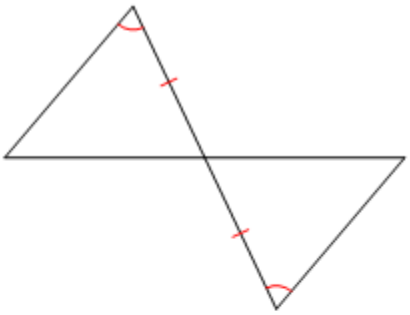
**4.3 ASA and AAS** **NAME:_____**

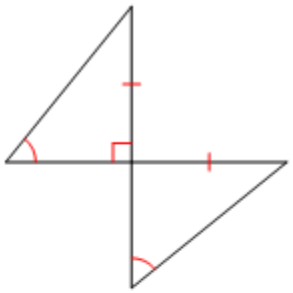
**CORRECTIVE ASSIGNMENT** **DATE:_____**

**State if the two triangles are congruent. If they are, state how you know.**

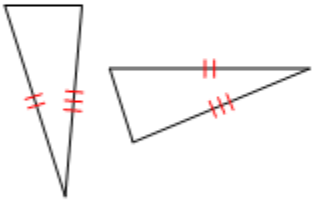
1)



2)



3)



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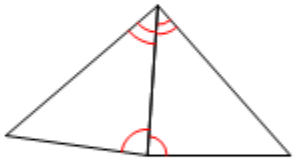

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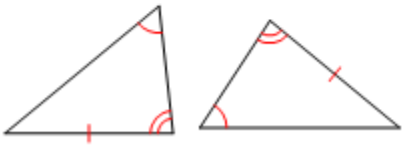

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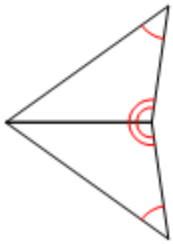

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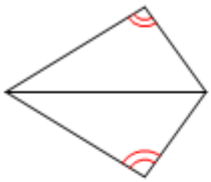

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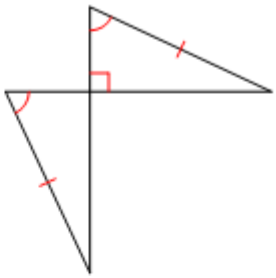
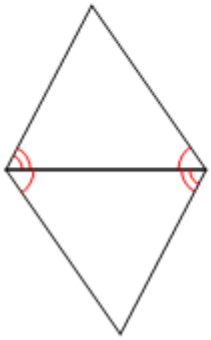
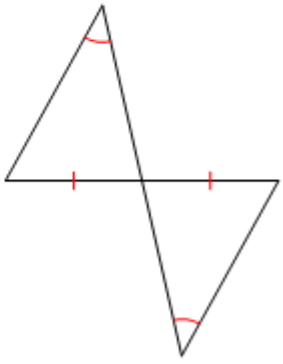


9)



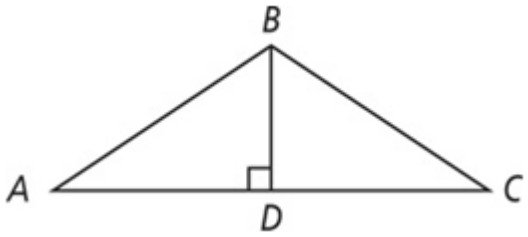
10)



**11. Prove the following. Start by marking the picture and determining why the triangles are congruent.**

**Given:** $\overline{BD} \perp \overline{AC}$, $\overline{BD}$ bisects $\angle ABC$

**Prove:** $\Delta ABD \cong \Delta CBD$



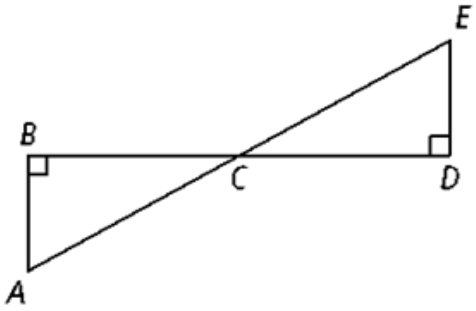

| STATEMENTS | REASONS |
|---|---|
| | |

**12. Prove the following. Start by marking the picture and determining why the triangles are congruent.**

**Given:** $\angle B$ and $\angle D$ are right angles.

$\overline{BD}$ bisects $\overline{AE}$

**Prove:** $\Delta ABC \cong \Delta EDC$




| STATEMENTS | REASONS |
|---|---|
| | |

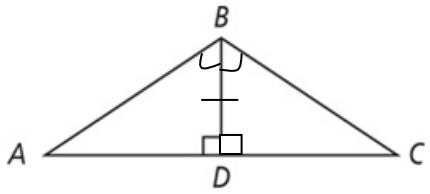
# 4.3 CORRECTIVE ASSIGNMENT ANSWERS

1) ASA
2) AAS
3) Not congruent
4) ASA
5) AAS
6) AAS
7) Not congruent
8) AAS
9) ASA
10) AAS

11.

**Given:** $\overline{BD} \perp \overline{AC}$, $\overline{BD}$ bisects $\angle ABC$

**Prove:** $\Delta ABD \cong \Delta CBD$



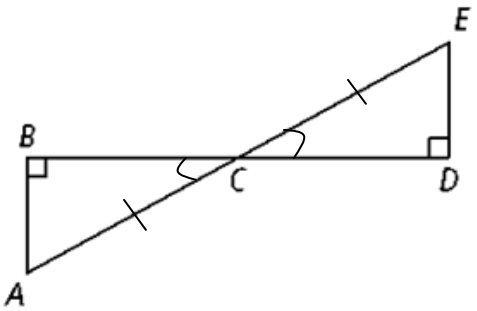

| STATEMENTS | REASONS |
|---|---|
| 1. $\overline{BD} \perp \overline{AC}$, $\overline{BD}$ bisects $\angle ABC$ | 1. Given |
| 2. $\angle ADB$ and $\angle CDB$ are right angles | 2. Definition of perpendicular |
| 3. $\angle ADB \cong \angle CDB$ | 3. All right angles are congruent |
| 4. $\angle ABD \cong \angle CBD$ | 4. Definition of Angle Bisector |
| 5. $\overline{BD} \cong \overline{BD}$ | 5. Reflexive Property |
| 6. $\Delta ABD \cong \Delta CBD$ | 6. ASA |

12.

**Given:** $\angle B$ and $\angle D$ are right angles.

$\overline{BD}$ bisects $\overline{AE}$

**Prove:** $\Delta ABC \cong \Delta EDC$




| STATEMENTS | REASONS |
|---|---|
| 1. $\angle B$ and $\angle D$ are right angles. $\overline{AE}$ bisects $\overline{BD}$ | 1. Given |
| 2. $\angle B \cong \angle D$ | 2. All right angles are congruent |
| 3. $\angle BCA \cong \angle ECD$ | 3. Vertical Angles are congruent |
| 4. $\overline{AC} \cong \overline{CE}$ | 4. Definition of Segment bisector |
| 5. $\Delta ABC \cong \Delta EDC$ | 5. AAS |