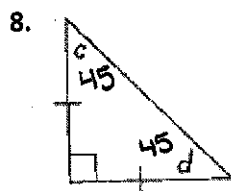
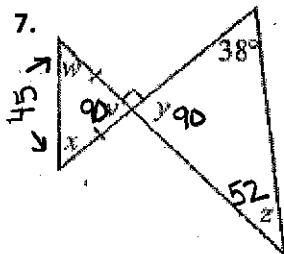
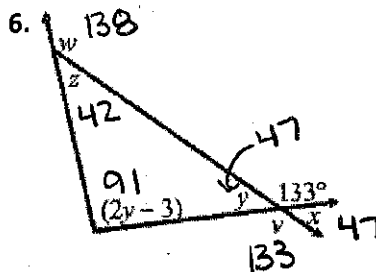
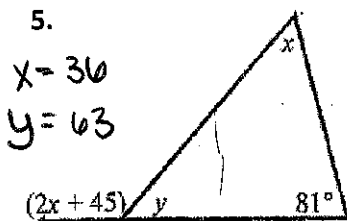
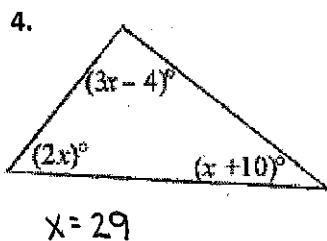
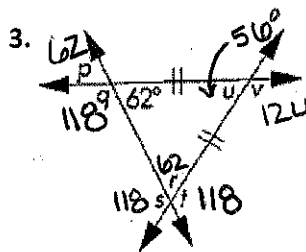
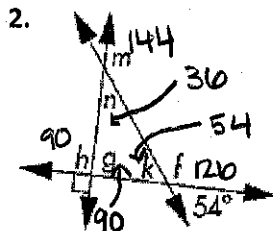
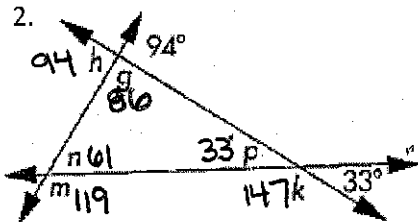


# Station Solutions

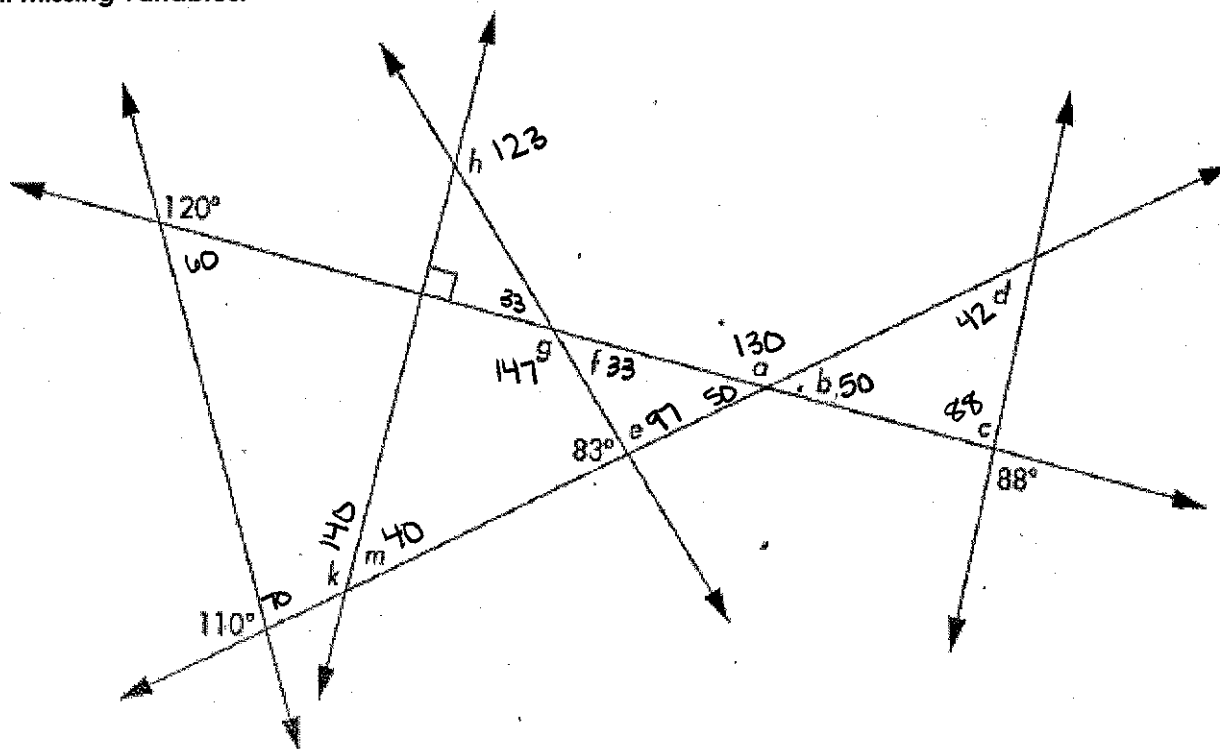
Math II

## Triangle Angle Sum Theorem Triangle Exterior Angle Theorem

Find all missing variables.

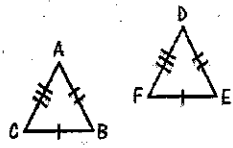
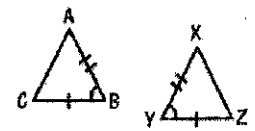
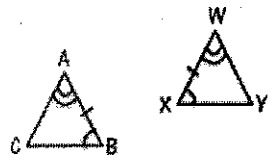
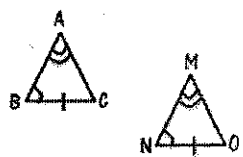
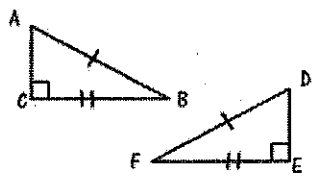
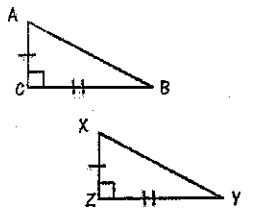
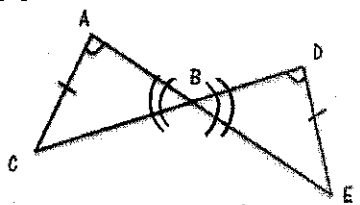
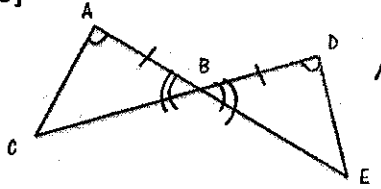
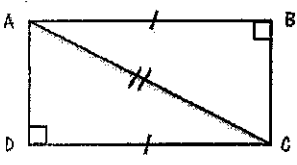
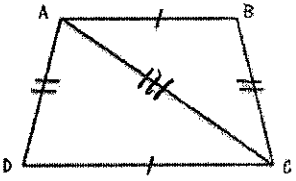
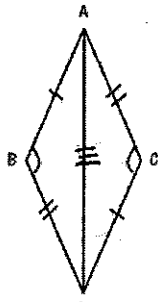


Find all missing variables.



# Station Solutions

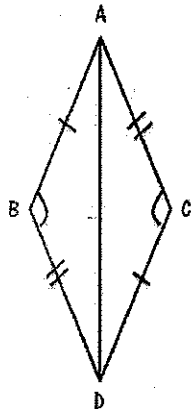
**Triangle Proof Review** List the congruence statement and the property used to prove the triangles congruent.

<p>[1] What are the 5 properties used to show two triangles are congruent?</p> <p>ASA SAS AAS SSS HL</p>	<p>[2]</p>  <p>SSS <math>\cong</math> <math>\triangle ABC \cong \triangle DEF</math></p>	<p>[3]</p>  <p>SAS <math>\cong</math> <math>\triangle ABC \cong \triangle XYZ</math></p>
<p>[4]</p>  <p>ASA <math>\cong</math></p> <p><math>\triangle ABC \cong \triangle WXY</math></p>	<p>[5]</p>  <p>AAS <math>\cong</math></p> <p><math>\triangle ABC \cong \triangle MNO</math></p>	<p>[6]</p>  <p>HL <math>\cong</math></p> <p><math>\triangle ABC \cong \triangle DFE</math></p>
<p>[7]</p>  <p>SAS <math>\cong</math></p> <p><math>\triangle ABC \cong \triangle XYZ</math></p>	<p>[8]</p>  <p>AAS <math>\cong</math></p> <p><math>\triangle ABC \cong \triangle DBE</math></p>	<p>[9]</p>  <p>ASA <math>\cong</math></p> <p><math>\triangle ABC \cong \triangle DBE</math></p>
<p>[10]</p>  <p>HL</p> <p><math>\triangle ABC \cong \triangle CDA</math></p>	<p>[11]</p>  <p>SSS <math>\cong</math></p> <p><math>\triangle ACD \cong \triangle CAB</math></p>	<p>[12]</p>  <p>SAS <math>\cong</math> or SSS <math>\cong</math></p> <p><math>\triangle ABD \cong \triangle DCA</math></p>

# Station Solutions

[13] Given: See diagram

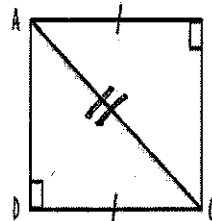
Prove:  $\triangle ACD \cong \triangle DBA$



STATEMENTS	REASONS
1. $\overline{AB} \cong \overline{DC}$	1. Given
2. $\angle B \cong \angle C$	2. Given
3. $\overline{BD} \cong \overline{AC}$	3. Given
4. $\triangle ACD \cong \triangle DBA$	4. SAS $\cong$

[14] Given: See diagram

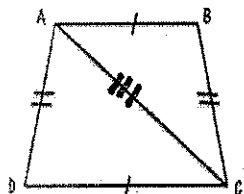
Prove:  $\triangle ABC \cong \triangle CDA$



STATEMENTS	REASONS
1. $\overline{AB} \cong \overline{DC}$	1. Given
2. $\angle B$ ; $\angle D$ are right	2. Given
3. $\angle B \cong \angle D$	3. Right $\angle$ s are $\cong$
4. $\overline{AC} \cong \overline{AC}$	4. Reflexive
5. $\triangle ABC \cong \triangle CDA$	5. HL

[15] Given: See diagram

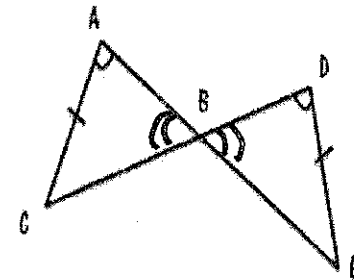
Prove:  $\triangle ABC \cong \triangle CDA$



STATEMENTS	REASONS
1. $\overline{AB} \cong \overline{DC}$	1. Given
2. $\overline{AD} \cong \overline{BC}$	2. Given
3. $\overline{AC} \cong \overline{AC}$	3. Reflexive
4. $\triangle ABC \cong \triangle CDA$	4. SSS $\cong$

[16] Given: See diagram

Prove:  $\triangle ABC \cong \triangle DBE$



STATEMENTS	REASONS
1. $\angle A \cong \angle D$	1. Given
2. $\overline{AC} \cong \overline{DE}$	2. Given
3. $\angle ABC \cong \angle DBE$	3. Vertical $\angle$ s $\cong$
4. $\triangle ABC \cong \triangle DBE$	4. AAS $\cong$