

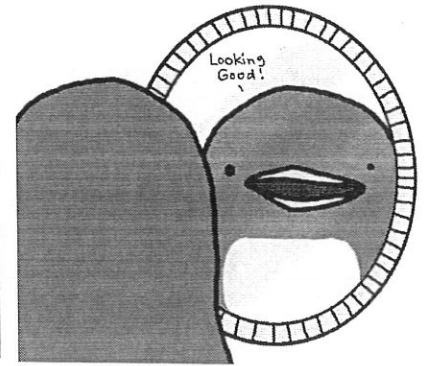
Section 4.4 & 4.5 Notes - Proving Triangles Congruent

TLW apply SSS and SAS to construct triangles and to solve problems

TLW prove triangles congruent by using SSS and SAS

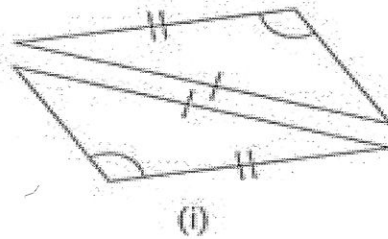
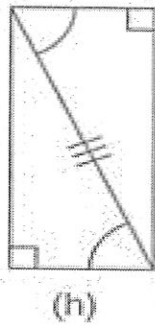
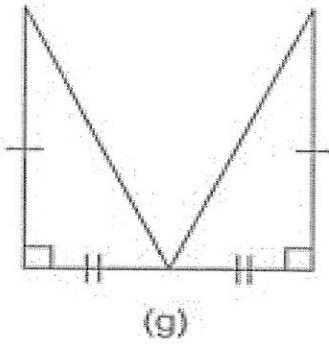
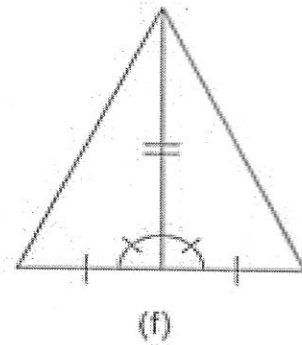
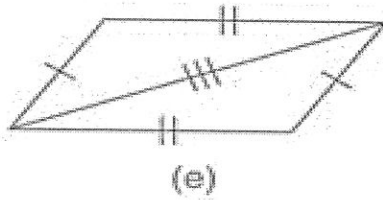
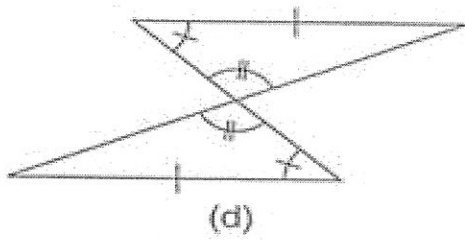
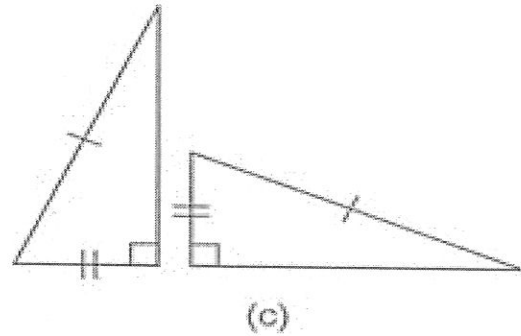
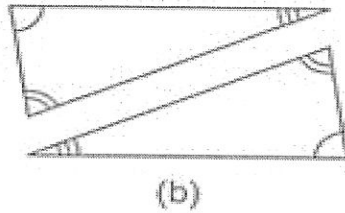
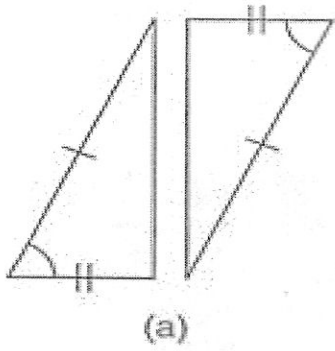
TLW apply ASA, AAS, and HL to construct triangles and to solve problems

TLW prove triangles congruent by using ASA, AAS and HL



<p>SIDE-SIDE-SIDE (SSS) CONGRUENCE</p> <p>If three sides of one triangle are congruent to three sides of another triangle, then the triangles are congruent.</p> <p style="text-align: right;">$\triangle BOW \cong \triangle MAN$</p>	
<p>SIDE-ANGLE-SIDE (SAS) CONGRUENCE</p> <p>If two sides and the included angle of one triangle are congruent to two sides and the included angle of another triangle, then the triangles are congruent.</p> <p style="text-align: right;">$\triangle BOW \cong \triangle MAN$</p>	
<p>ANGLE-SIDE-ANGLE (ASA) CONGRUENCE</p> <p>If two angles and the included side of one triangle are congruent to two angles and the included side of another triangle, then the two triangles are congruent.</p> <p style="text-align: right;">$\triangle BOW \cong \triangle MAN$</p>	
<p>ANGLE-ANGLE-SIDE (AAS) CONGRUENCE</p> <p>If two angles and a non-included side of one triangle are congruent to the corresponding angles and non-included side of another triangle, then the triangles are congruent.</p> <p style="text-align: right;">$\triangle BOW \cong \triangle MAN$</p>	
<p>HYPOTENUSE-LEG (HL) CONGRUENCE</p> <p>If the hypotenuse and a leg of a right triangle are congruent to the hypotenuse and a leg of another right triangle, then the triangles are congruent.</p> <p style="text-align: right;">$\triangle BOW \cong \triangle MAN$</p>	

DECIDE IF THE TRIANGLES ARE CONGRUENT. IF SO, WHICH THEOREM SHOWS THAT THE TRIANGLES ARE CONGRUENT. (SSS, SAS, ASA, AAS, HL)



~ VERIFYING TRIANGLE CONGRUENCE ~

SHOW THAT THE TRIANGLES ARE CONGRUENT FOR THE GIVEN VALUE OF THE VARIABLE.

(j) $\triangle UVW \cong \triangle YXZ$, $x = 3$

(k) $\triangle DEF \cong \triangle JGH$, $x = 7$

