Theorems and Postulates
Section 4.1

Theorem 4.1 (SAS Congruence Postulate)

If two sides and the included angle of one triangle are congruent respectively to two sides and the included angle of another triangle, then the two triangles are congruent.

Theorem 4.2 (LL Congruence Theorem)

If two legs of one right triangle are congruent respectively to two legs of another right triangle, then the two triangles are congruent.

Theorem 4.3 (HL Congruence Theorem)

If the hypotenuse and leg of one right triangle are congruent respectively to the hypotenuse and leg of another right triangle, then the two triangles are congruent.

Postulate 4.2 (ASA Congruence Postulate)

If two angles and the included side of one triangle are congruent respectively to two angles and the included side of another triangle, then the two triangles are congruent.

Postulate 4.3 (SSS Congruence)

If three sides of one triangle are congruent respectively to three sides of another triangle, then the two triangles are congruent.

Section 4.4 (The Converse of the Pythagorean Theorem)

If the sum of the squares of the lengths of two sides of a triangle equals the square of the third side, then the triangle is a right triangle.

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Corresponding parts of congruent triangles are congruent.