Theorem Proofs Document (correlation to Common Core, Geometry)

A. Prove that vertical angles are equal. G-C0-9
B. Prove that when a transversal cuts two parallel lines, alternate interior and exterior angles are equal. G-C0-9
C. Prove that the sum of the interior angles of a triangle is 180°. G-C0-9
D. Prove that the base angles of an isosceles triangle are equal. G-C0-9
E. Prove that the line segment joining the midpoints of two sides of a triangle is parallel to the third side and that its length is half that of the third side. G-C0-9
F. Prove that opposite angles of a parallelogram are congruent. G-C0-10
G. Prove that opposite sides of a parallelogram are congruent. G-C0-10
H. Prove that the diagonals of a parallelogram bisect each other. G-C0-10
I. Prove that a line parallel to one side of a triangle divides the other two sides proportionally. G-SRT-4
J. Prove the Pythagorean Theorem using triangle similarity. G-SRT-4
K. Prove that all circles are similar. G-C-1

The theorems listed here are but a **few** of the total in this curriculum. The vast majority are presented in the lessons themselves.