Theorem Proofs: (correlation with STAAR/EOC)

Legend:

Example **3[R]-G.5(B)**

- 3, The reporting category
- [R], Either Readiness or Supporting
- G.5, The TEKS
- (B) Expectation

[P], indicates a prerequisite skill

A. Prove that vertical angles are equal. **1[R]-G.2(B)**
B. Prove that when a transversal cuts two parallel lines, alternate interior and exterior angles are equal. **4[S]-G.9(A); 1[R]-G.2(B)**
C. Prove that the sum of the interior angles of a triangle is 180°. **1[R]-G.2(B)**
D. Prove that the base angles of an isosceles triangle are equal. **1[R]-G.2(B)**
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. **1[R]-G.2(B)**
F. Prove that opposite angles of a parallelogram are congruent. **2[S]-G.5(B); 1[R]-G.2(B)**
G. Prove that opposite sides of a parallelogram are congruent. **2[S]-G.5(B)**
H. Prove that the diagonals of a parallelogram bisect each other. **2[S]-G.5(B); 1[R]-G.2(B)**
I. Prove that a line parallel to one side of a triangle divides the other two sides proportionally. **1[R]-G.2(B)**

J. Prove the Pythagorean Theorem using triangle similarity. **4[R]-G.8(C)**

K. Prove that all circles are similar. **5[S]-G.11(A)**

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