Geometry Proof Strategies
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The list that follows grows (dynamic development) as the geometry course progresses through the year. In this writer's classroom, it is on the whiteboard. Any time that the class is stuck for ideas, this teacher arises from the overhead and stands by the list, reviewing aloud while pointing to what is spoken. If needed, class attention is directed alternately from the proof efforts to the list, and back to the list again. The light goes on eventually. Meanwhile, a good review of the course has taken place, in part because of teacher embellishment on bad guesses.

A. Look for congruent pieces of figures, and mark with tic marks:
- from GIVEN
- from recall
    - vertical angles
    - right angles
    - isosceles triangle or trapezoid
    - equal measures
    - reflexive property
    - transitive property

B. Look for congruent triangles or similar triangles.
- triangle congruence postulates
- triangle similarity postulates

C. Use CPCTC, and then revisit part A above
- In similarity, use Corresponding Angles in Similar Triangles $\cong$
- ...or Corresponding Sides of Similar Triangles are Proportional
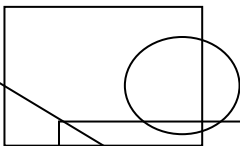
Out of clutter, find simplicity.

-- Albert Einstein, Three rules of work.