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Martin E Flashman* (flashman@humboldt.edu), Department of Mathematics, Humboldt State University, Arcata, CA 95521. *Understanding the Problem: Unification, Generalization or Abstraction?* Preliminary report.

After having taught bridge courses with many different texts and organizations, the author has evolved an approach that recognizes that students can benefit in their first steps in trying to compose a proof by recognizing not only the structure of the problem statement but also whether the problem is one that calls for (i)unification of experience with simpler statements arising from a single context; (ii) generalization of experience to contexts that are similar but different; or (iii) abstraction beyond any more specific context. The author will provide examples and clarification of how this additional analysis has changed his pedagogy. This work is based on Daniel Solow's text "The Keys to Advanced Mathematics..." and G. Polya's classic, "How To Solve It.." (Received September 18, 2012)