962-97-727   **Bao Qi Feng*** (`bfeng@mcs.kent.edu`), 245 Comanche PL, Kent, OH 44240. *How to prove trig identities.* Preliminary report.

We gave a uniform idea and a natural way to prove almost all of elementary trig identities. We summarize the differences between the two sides of an identify are only three kinds of differences, namely, angles, functions and operations. The process of verifying an identity is the process of using appropriate trig formulas to reduce the three differences. In order to use this natural way to prove trig identities, we need restart understanding all trig formulas from a new viewpoint. We point out every problem always give some clues, which show us how to solve it. The procedure of solving a problem is the procedure of discovering such clues of the problem. (Received September 23, 2000)