1125-14-1383 **Frank Sottile*** (`sottile@math.tamu.edu`), Department of Mathematics, Mailstop 3368, Texas A&M University, College Station, TX 77843-3368, **Anton Leykin** (`leykin@math.gatech.edu`), School of Mathematics, Georgia Institute of Technology, 686 Cherry Street, Atlanta, GA 30332-0160, and **Jose Israel Rodriguez** (`joisro@uchicago.edu`), Department of Statistics, University of Chicago, Chicago, IL 60637. *Trace Test.*

We give a brief derivation of the trace test to verify completeness of a witness set of an irreducible variety in affine or projective space. We then consider the trace test for subvarieties of products of projective spaces working with multihomogeneous witness sets. We show how a dimension reduction based on Bertini's Theorem leads to a practical trace test in this case involving a curve in a small-dimensional affine space. (Received September 16, 2016)