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George E. Andrews* (andrews@math.psu.edu), Department of Mathematics, 306 McAllister Building, Penn State University, University Park, PA 16802. *Ramanujan and False Theta Series*. Preliminary report.

We shall report on a study of a variety of identities involving what Ramanujan termed "the false theta functions...of Professor Rogers." Among the false theta functions that Ramanujan considered, the series formed from Gauss's celebrated triangular number series with alternating signs inserted seems to arise most often. We shall describe a computer search inspired by Ramanujan's discoveries and shall conclude with some new results including an identity for the difference of partial theta functions. (Received January 31, 2006)