Nirattaya Khamsemanan\* (nk@math.uconn.edu), Department of Mathematics, 196
Auditorium Road, University of Connecticut, Storrs, CT 06269, and Seugwon Kim
(swkim@math.ucla.edu), Department of Mathematics, UCLA, CA. Estimating Nielsen numbers on wedge product spaces.

Let  $f: X \to X$  be a self-map of a finite polyhedron that is an aspherical wedge product space X. In this paper, we estimate the Nielsen number N(f) of f. In particular, we study some algebraic properties of the free products and then estimate Nielsen numbers on torus wedge surface with boundary, Klein bottle wedge surface with boundary, and torus wedge torus. (Received September 18, 2006)