1035-11-1485 **Jonathan Bayless***, Department of Mathematics, 6188 Kemeny Hall, Dartmouth College, Hanover, NH 03755-3551. *On the Unit Group Analogue of Carmichael's Conjecture.* Preliminary report.

Carmichael's conjecture that there is not a unique preimage for any value of Euler's φ-function is well-known and widely believed. Since the unit group modulo n has order $\varphi(n)$, one might be tempted to conjecture that there is never a unique preimage for the function U, which maps an integer n to the isomorphism class of the unit group modulo n. However, this is false (consider $n = 24$). We give a lower bound on the number of counterexamples up to x, and we also show most numbers n are not counterexamples. (Received September 20, 2007)