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J. Amos, Iuliana Pascu and Vadim Ponomarenko* (vadim123@gmail.com), Department of Mathematics and Statistics, 5500 Campanile Drive, San Diego State University, San Diego, CA 92182, and **Enrique Trevino and Yan Zhang.** *The Multi-Dimensional Frobenius Problem.*

We consider the problem of finding maximal (in an appropriate partial order) solutions g to the linear Diophantine system $Mx = g$. We give conditions for the existence and uniqueness of g , bounds on g , and a reduction formula. This is work done by undergraduates in an REU program. (Received September 17, 2007)