

1014-Z1-471

Jonathan M. Kane* (kanej@uww.edu), Mathematical and Computer Sciences, University of Wisconsin, Whitewater, WI 53190-1790, and **Daniel M. Kane** (dankane@mit.edu). *Dropping Lowest Grades.*

Some teachers will drop one or more grades earned during a course in order to help raise students' grades. In this talk we consider the problem of finding the best r grades to drop from a collection of k grades. Many examples will be given showing that when the k grades are not all worth the same number of points, the optimal solution can be non-intuitive and tricky to identify. Many of our natural assumptions about how to find the best solution prove to be wrong. A brute-force algorithm for finding the best grades to drop would be to calculate the average grade for each subset of $k - r$ grades of the k grades. This algorithm is inefficient and impractical to use. The talk will include a very efficient algorithm which works well in practice. (Received September 16, 2005)