1067-B1-197 **Philip S. Marcus*** (philnjudy@yahoo.com), Department of Mathematics, Bradley University, Peoria, IL 61606. *Teaching Two Tailed Tests.* Preliminary report.

In introductory statistics classes, hypothesis tests are usually illustrated first with z tests and then with t tests. Because of the subtlety involved in deciding whether to use left tail, right tail or two tail hypotheses, which confuses many beginning students, z tests and t tests are not the best first examples of a hypothesis test for a possibly unsophisticated audience. For the past five years at Bradley University, students in some of the introductory statistics classes have been taught chi-square tests before z and t tests. Chi-square tests are interesting, useful and easy to understand. Students exposed to chi-square first have been able to manage the additional complexities of z and t tests as secondary complications which do not hurt the solid grasp of the essential concepts of hypothesis testing which they have learned in the automatically right tail environment provided by chi-square tests. A challenge involved in this approach is to make sure that when chi-square is included, there is still time for all the other usual topics of an introductory course - z tests, t tests, confidence intervals, correlation and regression. It is worth the effort. (Received August 01, 2010)