

1035-W1-1110 **Louis A Talman*** (talman1@mscd.edu), Department of Math'l and Computer Sciences, Campus Box 38, PO Box 173362, Denver, CO 80217-3362. *Questions My Calculus Teacher Couldn't Answer.*

As AP Calculus grows explosively, high school teachers are finding themselves where they never expected to be—in front of classrooms full of students who expect calculus courses. But the study of even elementary calculus touches upon many issues from real analysis, some of them rather deep. It is therefore not surprising that high school calculus teachers sometimes encounter questions they can't answer—through no fault of their own. In many respects, this represents a failure of our elementary real analysis courses, which frequently concentrate on building heavy machinery—but then put it into the hands of inexperienced users, who may not fully understand what it is for, or what it can do, or even how to operate it. In this talk, I will present some questions of this kind and, as time permits, point the way to some of the answers. (Received September 18, 2007)