Every teacher of calculus encounters various degrees of student understanding. To be a successful teacher, it is essential to understand student misconceptions and to make clear explanations to one’s students. Our project is concerned with how new teachers develop their ability to understand student thinking. We conducted individual interviews with graduate students teaching calculus for the first time. We interviewed each graduate student before and after their first teaching assignment. The interviews were transcribed and coded for analysis. We will present the results of our findings in this talk. Our hope is to provide information to that will be useful in developing more effective teaching training programs for graduate students who will teach undergraduate mathematics. (Received September 15, 2009)