

## Final Project Description

For your final project, you will develop, conduct and report in some detail on a classroom discussion about mathematics, using what you've learned about analyzing students' mathematical thinking and developing good questions. The primary goal of the discussion will be to draw out students' algebraic thinking about a particular problem.

Below is a description of the parts of your final project to show when you will work on each part.

### Anytime during the course

#### **Step 1: Choose the math activity that will be the focus of the discussion.**

Complete step 1 on the "Final Project" document. The activity you select must provide an opportunity for students to engage in some aspect of algebraic thinking.

You may select any of the math activities you encounter in this course, or from the Fostering Algebraic Thinking book, or from your own repertoire of activities.

### Anytime after Session 5

#### **Step 2: Identifying student misconceptions.**

Complete step 2 on the "Final Project" document. Describe the potential misconceptions or areas of difficulty that your students may have with the activity you selected.

#### **Step 3: Plan your discussion.**

Complete step 3 on the "Final Project" document. This includes identifying the goal of your discussion – in other words, how will you know when your discussion is "done?" – as well as listing possible discussion questions you will use that target the misconceptions you listed in Step 2. Please write your discussion plan clearly enough that someone else could follow it and try it out.

#### **Step 4: Conduct your classroom discussion.**

Refer to the section "Several Models for Conducting Your Discussion" on the **Final Project document** for some ideas on ways to do so. Time is set aside in Session 7 for you to complete this step; however, if this presents scheduling difficulties, you may want to complete it sooner.

### Due At the Conclusion of Session 8

#### **Step 5: Reflect on your discussion.**

Complete step 5 on the "Final Project" document. Respond to the four questions on the Final Project document as a reflection about your discussion.