What is the PMTC?
At the beginning of the semester, we were assigned to work with the Philadelphia Math Teacher’s Circle, which is a group of math teachers and professors from schools and universities within and near Philadelphia. They meet once per month, and at each meeting they discuss math problems and the process of teaching students math.
Problem solving is done by splitting the teachers into smaller groups which attempt to solve the given problem. At the end, each group discusses how they solved, or attempted to solve the problem.

Summary of User Experience
Given the fact that our primary audience only met once per month, it was challenging to find a group with similar needs to test our app on. However, we polled math students and professors to roughly approximate the target user base.

Our user test consisted of asking the users to complete tasks, with no specific instruction, that our regular users would be expected to complete. We judge ourselves based on how intuitively and speedily the test users were able to complete the tasks. The test was followed by a standardized questionnaire.

The immediate results showed that our app was relatively effective at accomplishing our goal, and was intuitive to use. However, there were lower numbers (4.286 out of 7) who said they would continue to use the app. However, given that this was not our target audience (mostly students and not teachers) we rationalized that we might still find better results with the PMTC.

Questionnaire results
The questionnaire yielded the averaged results of (out of 7):
1. A 4.286 for frequency that test user would use.
2. A 2.143 for unnecessary complexity.
3. A 5.429 for ease of use.
5. A 5.286 for well integrated functions.
6. A 2.143 for too much inconsistency.
7. A 5.571 for quick learning.
8. A 2.000 for cumbersome use.
9. A 5.571 for confidence in using the app.
10. A 2.143 for needing to learn things before using the app.

Project Goals
After visiting one of their meetings, we decided to focus on improving the meeting experience and collaboration itself. The goal of our app is to help facilitate constructive problem-solving sessions and make these sessions archivable by using android-compatible mobile devices and a cloud storage system. When math groups concurrently work on similar problems, it’s sometimes difficult for groups to share methods and solutions without halting the session. Our aim is to make that process easy, enjoyable, and achievable so that in the future, members can review solutions and discussion from the meeting.

By using a cloud storage model, we want produce a twitter-like space in which groups can see other groups working in real time, and administrators can comment on or encourage groups as they work.

How the App Works
When the user makes a post, we record which question the user is answering and which team they had joined and then send the image up to our cloud service Parse. When other users, or the administrator, refresh their interface they are able to see what the other user has done (as well as all the previous posts).

Administrators have the ability to create new questions and delete user posts or mark them as correct final solutions. The idea is to allow the admin to monitor all of the user groups at once. At the end during the discussion session, the admin can pull up answers with ease and analyze them with the group.

Technical Issues
As with any app, there are some issues that you do not encounter until you hit the field. During initial testing, we discovered that some of the essential buttons in our action bar were not initially recognizable. This was changed in later versions.

Additionally, we discovered a more serious issue: jank. Jank is the term that is given to jerky app usage. Our jank had to do with how we download images from our cloud server, which was originally done in a sequential manner. It is a solvable issue, luckily, but it will require recoding one of our Recycler Adapters.