# Math 592

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## 1 Assignments for Sept. 17

1. Continue working with Tarski's world; there will be little discussion of it on Sept. 17. But we will work in class on the 24th (by then you should do Chapter 4. Problems 4.1 to 4.11. Chapter 5. Problems 5.1 to 5.21. )

2. Read CPM material (geometry chapter handed out on Sept. 10) Make two copies of your answers to the following questions and turn one in on Sept. 17.

   (a) What is actually asked in problem 2-1?
   (b) List as many implicit assumptions and definitions as you can find. What notations must have been introduced earlier?
   (c) How would this material work in class? These materials are the second chapter of a geometry book for students who have had a traditional algebra curriculum but with a lot of group work and a questioning atmosphere in class. The first chapter deals with transformations and symmetry and the students have worked with hinged mirrors.
   (d) On what basis is a student accepting the various conjectures in the text?

3. What were hidden assumptions in the proof of proposition 1 of Euclid?

4. Finish the proof of Proposition 2 and prepare to discuss it on Sept. 17.

## 2 Assignments for Sept. 24

1. Continue Tarski's world. Chapter 4. Problems 4.1 to 4.11. Chapter 5. Problems 5.1 to 5.21.

2. Revise and extend your answer to the questions about the CPM materials after the Sept. 17 discussion.

3. You walk one mile south then a mile west then a mile north you are now back to the same place you started???? Where are you???? (Two part question: The usual understanding of this is that there is only on correct answer. Find it. In fact, there are infinitely many. What are the rest of them? (Hint. There is only one solution if I add the constraint: During the trip, you see a polar bear.)