

**Math 127**  
**Homework 1 due on Wednesday, 1/18**

– Use the Axioms of Four-Point Geometry to prove the following theorems :

4P Theorem 2 : There are exactly 6 lines.

4P Theorem 3 : Each point has exactly three lines on it.

– After reading the excerpts from Flatland : A Romance of Many Dimensions answer the following questions. Bear in mind that if I can not read what you write, I can not grade it either. Be neat and complete.

1. Describe Flatland, its inhabitants and their dwellings.

2. What do you think of the social order of this country ?

3. Refer to the description of Circles of Priests given to you by our friend A. Square. Explain how can circles be approximated, both in words and pictorially.

Not to be turned in :

**Challenge** 4P Theorem 4 : Each distinct line has exactly one line parallel to it.