

# MATH 402 Non-Euclidean Geometry

## Homework - Week 3

### Homework for Friday 09/11.

1. Play <http://euclidthegame.com/>. For the Levels 1-6, do the following:

- Finish the level. If you are stuck, re-read relevant parts of Hvidsten. Most of the information you will need is in Chapter 1 and Section 2.1, but Chapter 4 can be useful as well for the higher levels.
- Write down the construction on paper, step by step. (You should have as many steps as <http://euclidthegame.com/> counted for you.)
- Write a proof that the construction does what is required.

For example, the construction for Level 1 is in Chapter 1.6, and we did it as well as the proof that it works last week in class.

2. Complete more levels, and for the highest one that you complete, repeat the above (i.e. write down the construction as well as a proof that it works).