MTH 338

LAB 2

Exploring Elliptic Geometry Using Geometer's Sketchpad

1. GETTING STARTED

- Add the network place \\poole\ClassFolders .
- Browse to \\poole\ClassFolders\Math-Dray .
- Double-click on Map Onid Drive .
- \bullet Start Geometer's Sketchpad by double-clicking on $\ \mbox{GSP}\ \mbox{4.06}$.

2. ELLIPTIC GEOMETRY

• Copy the sketch \\poole\ClassFolders\Math-Dray\Elliptic.gsp to your ONID directory, then open the copy from inside Geometer's Sketchpad.

Double-clicking on a sketch does not seem to work. Opening my copy of this file may prevent others in the class from accessing it.

This sketch not only shows the Klein disk, but also adds custom tools to the last icon on the left, below the text icon. To access one of these tools the first time, click on the icon, then select the tool you want. To access the same tool again, after having selected another tool, simply click on the icon again. To get the list of tools back, click on the icon and hold the mouse button down until the list reappears.

3. ASSIGNMENT

- Construct an elliptic triangle. Measure all of its sides and angles.
- Construct another triangle such that two corresponding sides as well as the included angle are congruent.
- Check whether SAS congruence holds in this case by measuring the remaining sides and angles.
- (Optional) Use a similar construction to check whether SSS congruence holds.