Space: Its Light, Its Shape.

Chapter 11: Geometries on Surfaces

Assignment: For Monday, February 21, 2005

- Read Chapter 11.
- Though everyone is responsible for reading all of the material and for working out all of the exercises, teams have been assigned specific material and exercises for which they are responsible in class presentations. You may want to come to class early to firm up and smooth out the exercises with your teammates.

Team 1: Describe and illustrate how we can eliminate cone points by moving our surface into a different geometric setting. What surface is described by the top hexagon in Figure 11.1?

Team 2: Describe and illustrate how we can eliminate the opposite of cone points by moving our surface into a different geometric setting.

Team 3: Present Exercise 11.1.

Team 4: Present Exercise 11.2.

Team 1: Describe (and illustrate as well as possible) how to find a homogenous geometry for the three-holed doughnut.

Team 2: Present Exercise 11.3.

Team 3: Describe the homogeneous geometry that can be given to an n-holed doughnut surface.

Team 4: Present Exercise 11.4.

Team 1: Present Exercise 11.5.

Team 2: Summarize which surfaces admit which type of geometry.