MA341 Homework #5
In class, October 3, 2001
Chapter 3

Write your name on this sheet.

1. Problem 3 on page 105. You may simply list the selected patterns by letter.

2. Problem 8 on page 107—construct this antiprism with Polydron and show it to me. Then unfold it and show it to me.

3. Problem 9 on page 107

   (a) Try to construct a polyhedron with 7 sides with Polydron. Show it to me.

   (b) For which values of n does there exist a polyhedron with n faces? Briefly explain why.

4. Problem 1 on page 104—construct a nonconvex polyhedron with Polydron and show it to me.

5. Class project: Use Polydron to construct as many polyhedra as you can with all of the following properties. As each one is constructed, bring it to the front of the room for display. Do not duplicate one that has already been constructed.

   (a) The polyhedron is convex.

   (b) Every face is an equilateral triangle.

   (c) No two triangles joined by an edge lie in the same plane.