

**MATH 4306 Lab Activities 8**  
**Submissions due Thursday, March 28, 2002**

All group members must sign the submission attesting to the fact that they participated fully in doing this assignment.

Be sure to start ISETL with the .ini file that will give you access to the funcs as discussed in class last time. You should be able to start the activities immediately after arriving in class.

1. Do the activity in Section 3.2.1, #1, p. 94.

SUBMIT: Your explanation of the meaning of the ISETL expression `% .o [a: i in [1..n] ];`

2. Do the activity in Section 3.2.1, #2, p 95.

SUBMIT: The text of your code for the func pG. Hint: Use the expression from Activity 1 in the func pG.

3. Do the activity in Section 3.2.1, #3, p. 95.

SUBMIT: The result of applying your func gen to the given situations. Hint: your func gen should be based on the func pG.

4. Do the activity in Section 3.2.1, #5,6, p. 95.

SUBMIT: The list of all the elements of Z12, S3 with gen(g) being all of Z12, S3.

5. Do the activity in Section 3.2.1, #7 a,b, p. 95 and repeat for Z11 and S4.

SUBMIT: Your observation about the collection of resulting sets and the relationship between number of elements in each resulting set and the order of the original group.

6. Do the activity in Section 3.2.1, #11, p. 96.

SUBMIT: Your data from running the func order on each element of Z12 and of S3, along with your observations about the numbers that come out.

7. Do the activity in Section 3.2.1, #4, p. 95.

SUBMIT: Your statement and proof of a theorem explaining your observations.