HOMEWORK #3: Prime Implicants

This homework is due electronically by midnight on Tuesday, September 22, 1998.

1. Chapter 4, problem 11 (10 points)

2. Programming exercise 1 (90 points)
   Using your favorite programming language, implement the recursive consensus procedure to find all primes for single-output functions. This program should accept espresso style input files. As an example, the input file for problem 11 is below:

   .i 4
   .o 1
   0-01 1
   -111 1
   1110 -
   101- -
   .e

   The result should also be in espresso style as shown below:

   .i 4
   .o 1
   .p 4
   1-1- 1
   01-1 1
   -111 1
   0-01 1
   .e

   To check your results, you can use the following espresso (espresso can be found in ~cmyers/bin) command:
espresso -Dexact -Dprimes (filename)

   Put all your files in one directory, and please be sure to include a README file with your problem 11 and a description how to compile and use your code. To turn in your directory, type the following commands in your working directory:
tar cvf hw3.tar *
gzip hw3.tar
uuencode hw3.tar.gz hw3.tar.gz | mail myers@ee.utah.edu

3. Extra credit
   Find prime implicants for multiple output functions.