EE 610 Homework 1
Due September 18, 2000

1. W 11.2

2. W 11.3

3. W 11.4

4. Consider the rate 1/3 convolutional code with

$$
\begin{aligned}
g^{(1)} &= (1\ 1\ 0) \\
g^{(2)} &= (1\ 0\ 1) \\
g^{(3)} &= (1\ 1\ 1)
\end{aligned}
$$

   (a) Draw the state diagram of the encoder.
   (b) Compute the column distance function of the code. What is the free distance of the code?
   (c) Find the weight enumerator, $T(X, Y)$ of the code.

W denotes problems from Wicker text first number is chapter, second number is problem