

Electrical Engineering 434

Quiz 1a, Fall 2002

Name: _____

THIS QUIZ IS NOT RELEASED FROM ACADEMIC SECURITY UNTIL 0830 MDT
ON THE DAY WHICH IT IS GIVEN. DO NOT REVEAL ITS CONTENTS TO, OR
DISCUSS IT WITH, ANYONE UNTIL THEN.

This Quiz has 3 questions, for a total of 10 points. Answer the questions below.
Show your work for possible partial credit.

- 4 1. Given: $x(t) = 10 \cos(2\pi 500t)$. Determine the equation form of $x[n]$ if $f_s = 2000$ Hz.
- 2 2. Evaluate the expression: $14 \bmod 5$.
- 4 3. Given: the magnitude plot of a DFT as shown below. Assume no aliasing occurred and that $f_s = 4000$ Hz. Determine the frequency or frequencies of the original input signal.

