Overview

- 1. What is the difference between a digital signal and a quantized signal?
- 2. Which of the following is a signal and which is not:



- 3. Which of the following is true (if any) and why:
 - a. Every continuous signal is a continuous function
 - b. Every continuous function can be a continuous signal
 - c. Every list of real numbers can be treated as a discrete time signal
 - d. Computers can store continuous signals
- 4. Which of the following is a causal linear digital signal processing system:
 - a. $y = x^2$
 - b. $y = 2.5x_{-1} + y_{-2}$
 - c. $y = 0.5x_{+1}$
 - d. $y_{+2} = 0.5x_{+1}$
- 5. Change the equations of the following signals to describe the signal after it passes through an ADC with a sample period of T:
 - a. $x(t) = e^{-3t} \cos(2\pi t)$
 - b. $x(t) = 2\cos(10t) 3\sin(2t)$
- 6. Find the value of sample n = 10 for the following signals after they pass through an ADC with a sample period of 0.05 seconds:
 - a. $x(t) = e^{-3t} \cos(2\pi t)$
 - b. $x(t) = 2\cos(10t) 3\sin(2t)$