ECE 302 Quiz 6
(10 points)

Name: _____ (3 points) 07/28/2016

1. Let $X(t)$ be a random process defined by

$$X(t) = \begin{cases} A & , 0 \leq t \leq 1, \\ 0 & , \text{else}, \end{cases}$$

where A is a discrete random variable that takes on the values 1 and -1 with probability $1/2$. **Show all work.**

(a) (4 points) Plot all the possible sample functions of $X(t)$. Specify what the outcome is in each case.

(b) (3 points) Find the pmf of $X(t)$ for any fixed $t \in (-\infty, \infty)$.