

EECS20n, Quiz 1, 9/15/00

The quiz is to provide feedback to you and to me about how well you've followed the material so far. The quiz will take 15 minutes.

Please print your name and your TA's name here:

Last Name _____ First _____ TA's name _____

1. Give one signal from $[Nats_0 \rightarrow Bin]$ and one signal from $[Reals \rightarrow Reals]$.
2. For what values of $x \in Reals$ does the following predicate evaluate to true:
$$[1, x) \cap [1.5, 3] = \{y \in Reals \mid 1.5 \leq y \leq 3\}?$$
3. Construct a finite state machine with $Inputs = \{0, 1, absent\}$, $Outputs = \{r, absent\}$, and which outputs r whenever the input signal contains the sequence 000, otherwise it outputs *absent*.