Getting Acquainted with APPL

ECE/CS 541

Due Sept. 7, 2016

This exercise is designed to get you working with the APPL package when installed in Maple.

1. Start Maple, open a new worksheet, and read in the APPL library.

2. Create an exponential random variable X1 with rate 1
   - get Maple to print the variable’s mean and its variance
   - get Maple to plot (using PlotDist) the variable’s probability density function, its cumulative distribution function, and its hazard rate function

3. Create another exponential random variable X2 with rate 2, and then a random variable XMin which is the minimum of X1 and X2
   - Convert the form of min(X1,X2) into the hazard rate function, and get Maple to plot it.

4. Create a continuous random variable whose hazard rate function is \( h(t) = \sin(t) + 1.1 \).
   - get Maple to plot its probability density function
   - get Maple to print its mean and variance

Using the Print function of Maple you can output the worksheet you’ve been developing. Turn a hardcopy of that in for this exercise.