

**EE 315-Fall 2011(111)**  
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**Assignment 1**

- (a) Generate 200 random number **uniformly** distributed in the interval (0,1).
- (b) plot the histogram of the data ?
- (c) write a matlab program to calculate the **mean** and **variance** of the random variable in (a) and verify the result theoretically and using the the Matlab function **mean** and **cov**?

**Note:** In writing matlab program to calculate the **mean** and **variance** of the random variable in (a) , do not use the the Matlab function **mean** and **cov** .

- (d) Generate 300 random number uniformly distributed in the interval (1,2)  
And plot the histogram?
- (e) Generate 300 random number uniformly distributed in the interval (-1,0)  
And plot the histogram?
- (f) Generate 300 random number uniformly distributed in the interval (0,4)  
And plot the histogram?
- (g) Generate 300 random number **Gaussian** distributed of mean 3 and variance 2  
And plot the histogram?