MA 485-1E (Probability Theory), Dr. Chernov Assignment #10
Due Mon, Nov 4

Chapter VII. Problems 7.3.6.

Chapter X. Problems 10.1.8, 10.1.11, 10.1.14 (in this problem, you also need to find the probability function of X), 10.1.18*.

One more problems:

10-A. Suppose X and Y are two independent random variables such that $E(X) = -2$, $\mathrm{Var}(X) = 25$, $E(Y) = 3$, and $\mathrm{Var}(Y) = 4$. Let $W = 5Y - 6X - 3$. Compute $E(W), \sigma_W$, $E(X^2)$, $E(Y^2)$, and $E(X^2 - 2XY + 3Y^2)$.

Note: the the second midterm will cover the material up to the end of the last week (up to the class of October 26).