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ECONOMICS 6331 – Probability and Statistics, Fall 2005

Homework 4. Monday September 19. Due Monday September 26.

1. Ramanathan, Practice Problem 3.7, page 43.

2. Ramanathan, Practice Problem 3.8, page 47.

3. If X is a Binomially distributed random variable with $p = 0.4$ and $n = 2$, what is the mean and variance of X?

4. Ramanathan, Practice Problem 3.9, page 48. (Check that your answer agrees with what you got in question 3.)

5. Assume that X is uniformly distributed on the interval $[-5, 10]$. Let $h(x)$ be the function x^4. Find $P\{h(X) \geq b\}$ and $Eh(X)$ and verify that $Eh(X) \geq b\,P\{h(X) \geq b\}$ for $b = 1$ and $b = 16$.