# Homework 1, Sta/OR 524 Fall 2005 

Due Sept. 7

1. If $X$ is a random variable with $\operatorname{Poisson}(\lambda)$ distribution. Please find $E\left(X^{2}\right)$.
2. For a fixed Poisson distribution with parameter $\lambda$, which integer value(s) has the highest probability/probabilities?
3. Focus on the probability $P(X=2)$ in a Poisson distribution. What $\lambda$ value will make this probability the largest?
4. Page 37 number 22.
5. Page 40 number 31.
