## Homework 5, Sta/OR 524 Fall 2005

Due Oct. 28

1. If $X$ is an exponential $(\lambda)$ random variable, find $E(X) ; E\left(X^{2}\right)$ and $\operatorname{Var}(\mathrm{X})$.
2. Find $P(3<X<5)$ where $X$ is same as above.
3. Find the moment generating function of $X$ if $X$ has uniform (continuous) distribution on interval $[0,1]$.
