Numerical Characteristics of Random Variables

The means and variances of the following distributions:

Distribution	**Notation**	**Mean** $E(X)$	**Variance** $V(X)$
discrete uniform	$U(m)$	$\frac{m+1}{2}$	$\frac{m^2-1}{12}$
binomial	$B(n,p)$	np	npq
hypergeometric	$H(N,n_1,n)$	$\frac{nn_1}{N}$	$\frac{nn_1(N-n_1)(N-n)}{N^2(N-1)}$
Poisson	$P(\lambda)$	λ	λ
Pascal	$NB(n,p)$	$\frac{nq}{p}$	$\frac{nq}{p^2}$
geometric	$G(p)$	$\frac{q}{p}$	$\frac{q}{p^2}$
uniform	$U(a,b)$	$\frac{a+b}{2}$	$\frac{(b-a)^2}{12}$
normal	$N(\mu,\sigma)$	μ	σ^2
gamma	$Ga(a,b)$	ab	ab^2
exponential	$Exp(\lambda)$	$\frac{1}{\lambda}$	$\frac{1}{\lambda^2}$
beta	$\beta(a,b)$	$\frac{a}{a+b}$	$\frac{ab}{(a+b+1)(a+b)^2}$
Student	$T(n)$	0	$\frac{n}{n-2},\ n>2$
chi squared	$\chi^2(n)$	n	$2n$
Fisher	$F(m,n)$	$\frac{n}{n-2},\ n>2$	$\frac{2n^2(m+n-2)}{m(n-2)^2(n-4)},\ n>4$