Summary of Probability Distribution Statistics
Mat 253 - John Travis

Distribution	Mean	Variance	Skewness	Kurtosis
Hypergeometric	$r\frac{n_1}{n}$	$r\frac{n_1}{n}\frac{n_2}{n}\frac{n-r}{n-1}$	$\frac{(n-2n_1)\sqrt{n-1}(n-2r)}{rn_1(n-n_1)\sqrt{n-r}(n-2)}$	$\frac{n(n+1)-6n(n-r)}{n_1(n-n_1)}+\frac{3r(n-r)(n+6)}{n^2}-6$
Binomial	np	np(1-p)	$\frac{1-2p}{\sqrt{np(1-p)}}$	$\frac{1-6p(1-p)}{np(1-p)}+3$
Geometric	1/p	$(1-p)/p^2$	$\frac{2-p}{\sqrt{1-p}}$	$\frac{p^2-6p+6}{1-p}+3$
Neg. Binomial	r/p	$r(1-p)/p^2$	$\frac{2-p}{\sqrt{r(1-p)}}$	$\frac{p^2-6p+6}{r(1-p)}+3$
Poisson	tλ	tλ	$\frac{1}{\sqrt{\lambda}}$	$\frac{1}{\lambda}+3$