

| 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 | $np(1-p)$ |
| Hypergeometric | $H(N, n_1, n)$ | $n \frac{n_1}{N}$ | $n \frac{n_1}{N} (1 - \frac{n_1}{N}) \frac{N-n}{N-1}$ |
| Poisson | $P(\lambda)$ | λ | λ |
| Pascal (Neg. Bin.) | $NB(n, p)$ | $\frac{n}{p}$ | $\frac{n(1-p)}{p^2}$ |
| Geometric | $G(p)$ | $\frac{1}{p}$ | $\frac{1-p}{p^2}$ |
| Uniform | $U(a, b)$ | $\frac{a+b}{2}$ | $\frac{(b-a)^2}{12}$ |
| Normal | $N(\mu, \sigma)$ | μ | σ^2 |
| Gamma | $Ga(a, b)$ | $\frac{a}{b}$ | $\frac{a}{b^2}$ |
| Exponential | $Exp(\lambda)$ | $\frac{1}{\lambda}$ | $\frac{1}{\lambda^2}$ |
| Beta | $\beta(a, b)$ | $\frac{a}{a+b}$ | $\frac{ab}{(a+b)^2(a+b+1)}$ |
| Student | $T(n)$ | 0 for $n > 1$ undefined otherwise | $\frac{n}{n-2}$ for $n > 2$ undefined otherwise |
| Chi squared | $\chi^2(n)$ | n | $2n$ |
| Fisher | $F(m, n)$ | $\frac{n}{n-2}$ for $n > 2$ undefined otherwise | $\frac{2n^2(m+n-2)}{m(n-2)^2(n-4)}$ for $n > 4$ undefined otherwise |