Distributions	PMF/PDF	CDF	MGF	$\mathbb{E}[X]$	$\mathrm{Var}(X)$	$\mathbb{E}[X^2]$
$B(p)$	$f(x) = \begin{cases} 1-p & x=0 \\ p & x=1 \end{cases}$	$F(x) = \begin{cases} 0 & x<0 \\ 1-p & 0 \leq x < 1 \\ 1 & x \geq 1 \end{cases}$	$M(s) = (1-p) + pe^s$	p	$p(1-p)$	p
$B(n,p)$	$f(k) = \binom{n}{k} p^k (1-p)^{n-k}$	$F(k) = \sum_{i=0}^{\lfloor k \rfloor} \binom{n}{i} p^i (1-p)^{n-i}$	$M(s) = (pe^s + 1 - p)^n$	np	$np(1-p)$	$np(p(n-1)+1)$
$P(\lambda)$	$f(k) = e^{-\lambda} \frac{\lambda^k}{k!}$	$F(k) = \sum_{i=0}^{\lfloor k \rfloor} e^{-\lambda} \frac{\lambda^i}{i!}$	$M(s) = e^{(e^s - 1)\lambda}$	λ	λ	$\lambda^2 + \lambda$
$\mathrm{Geom}(p)$	$f(k) = (1-p)^k p$	$1 - (1-p)^{k+1}$	$M(s) = \frac{p}{1-(e^s(1-p))}$	$\frac{1-p}{p}$	$\frac{1-p}{p^2}$	$\frac{(p-1)(p-2)}{p^2}$
$U(a.b)$	$f(x) = \mathbb{1}_{(a,b)}(x) \cdot \frac{1}{b-a}$	$F(x) = \begin{cases} 0 & x \leq a \\ \frac{x-a}{b-a} & a < x < b \\ 1 & x \geq b \end{cases}$	$M(s) = \frac{e^{sb} - e^{sa}}{s(b-a)}$	$\frac{a+b}{2}$	$\frac{(b-a)^2}{12}$	$\frac{(b-a)^2 + 3(a+b)^2}{12}$
$\exp(\lambda)$	$f(x) = \lambda e^{\lambda x}$	$F(x) = 1 - e^{-\lambda x}$	$M(s) = \frac{\lambda}{\lambda - s}$	$\frac{1}{\lambda}$	$\frac{1}{\lambda^2}$	$\frac{2}{\lambda^2}$
$N(m, \sigma^2)$	$f(x) = \frac{1}{\sqrt{2\pi\sigma^2}} e^{-\frac{(x-m)^2}{2\sigma^2}}$	$F(x) = \int_{-\infty}^{x} \frac{1}{\sqrt{2\pi\sigma^2}} e^{-\frac{(x-m)^2}{2\sigma^2}}$	$M(s) = \exp\left(ms + \frac{\sigma^2 s^2}{2}\right)$	m	σ^2	$\sigma^2 + m^2$