$M_X(t)$	$Var[x]$	$E[x]$	$p_x(k)\ \backslash\ f_X(t)$	$F_X(t)$	
$1-p+p\,e^t$	$p(1-p)$	p	$p_x(1)=p,$ $p_x(0)=1-p$		$X\sim Ber(p)$
	$\frac{N^2-1}{12}$	$\frac{N+1}{2}$	$\begin{cases}\frac{1}{N} & k\in[N]\\ 0 & else\end{cases}$		$X\sim U([N])$
$(1-p+p\,e^t)^n$	$np(1-p)$	np	$\binom{n}{k}p^k(1-p)^{n-k}$		$X\sim Bin(n,p)$
$\frac{e^t p}{1-e^t(1-p)}$	$\frac{1-p}{p^2}$	$\frac{1}{p}$	$\begin{cases}p(1-p)^{k-1} & k\in\mathbb{N}\\ 0 & else\end{cases}$		$X\sim Geo(n,p)$
$e^{\lambda(e^t-1)}$	λ	λ	$\begin{cases}\frac{e^{-\lambda}\lambda^k}{k!} & k\in\mathbb{N}\cup\{0\}\\ 0 & else\end{cases}$		$X\sim Po(\lambda)$
$\frac{e^{bt}-e^{at}}{(b-a)t}$	$\frac{(b-a)^2}{12}$	$\frac{a+b}{2}$	$\frac{1}{b-a}\quad a\leq t\leq b$	$\frac{t-a}{b-a}$	$X\sim Unif([a,b])$
$\frac{\lambda}{\lambda-t}\quad t<\lambda$	$\frac{1}{\lambda^2}$	$\frac{1}{\lambda}$	$\begin{cases}\lambda e^{-\lambda t} & t\geq 0\\ 0 & t<0\end{cases}$	$\begin{cases}1-e^{-\lambda t} & t\geq 0\\ 0 & t<0\end{cases}$	$X\sim Exp(\lambda>0)$
	1	0	$\frac{1}{\sqrt{2\pi}}e^{-\frac{t^2}{2}}$		$X\sim \mathcal{N}(0,1)$