Cuadro 1: **Resumen distribuciones**

nombre	parámetros	notación	tipo	soporte	distribución	esperanza	varianza	f.g.m.
Bernoulli	$p \in (0,1)$	$X \sim \text{Bernoulli}(p)$	discreta	$\{0,1\}$	$p_X(0) = 1-p$, $p_X(1) = p$	p	$p(1-p)$	$1-p+pe^t$
binomial	$n \in \mathbb{N}^*$, $p \in (0,1)$	$X \sim \text{bin}(n,p)$	discreta	$\{0,1,\ldots,n\}$	$p_X(k) = \binom{n}{k} p^k (1-p)^{n-k}$	np	$np(1-p)$	$(1-p+pe^t)^n$
geométrica	$p \in (0,1)$	$X \sim \text{geom}(p)$	discreta	$\{1,2,3,\ldots\}$	$p_X(k) = (1-p)^{k-1}p$	$\frac{1}{p}$	$\frac{1-p}{p^2}$	$\frac{pe^t}{1-(1-p)e^t}$
binomial negativa	$r \in \mathbb{N}^*$, $p \in (0,1)$	$X \sim \text{BN}(r,p)$	discreta	$\{r, r+1, \ldots\}$	$p_X(k) = \binom{k-1}{r-1}(1-p)^{k-r}p^r$	$\frac{r}{p}$	$\frac{r(1-p)}{p^2}$	$\left(\frac{pe^t}{1-(1-p)e^t}\right)^r$
Poisson	$\lambda > 0$	$X \sim \text{Poisson}(\lambda)$	discreta	$\{0,1,2,\ldots\}$	$p_X(k) = e^{-\lambda}\frac{\lambda^k}{k!}$	λ	λ	$e^{\lambda(e^t-1)}$
uniforme	$a, b \in \mathbb{R}$, $a < b$	$X \sim \text{unif}(a,b)$	continua	$[a,b]$	$f_X(x) = \frac{1}{b-a}\mathbb{1}_{[a,b]}(x)$	$\frac{a+b}{2}$	$\frac{(b-a)^2}{12}$	$\frac{e^{tb}-e^{ta}}{t(b-a)}$
exponencial	$\lambda > 0$	$X \sim \exp(\lambda)$	continua	$[0,\infty)$	$f_X(x) = \lambda e^{-\lambda x}\mathbb{1}_{[0,\infty)}(x)$	$\frac{1}{\lambda}$	$\frac{1}{\lambda^2}$	$\frac{\lambda}{\lambda-t}\ \forall t < \lambda$
normal	$\mu \in \mathbb{R}$, $\sigma > 0$	$X \sim \mathcal{N}(\mu,\sigma^2)$	continua	$\mathbb{R}$	$f_X(x) = \frac{1}{\sqrt{2\pi}\sigma}e^{-\frac{(x-\mu)^2}{2\sigma^2}}$	μ	σ^2	$e^{\mu t + \frac{1}{2}\sigma^2 t^2}$
gamma	$\theta > 0$, $\lambda > 0$	$X \sim \text{gamma}(\theta,\lambda)$	continua	$[0,\infty)$	$f_X(x) = \frac{\lambda e^{-\lambda x}(\lambda x)^{\theta-1}}{\Gamma(\theta)}\mathbb{1}_{[0,\infty)}(x)$	$\frac{\theta}{\lambda}$	$\frac{\theta}{\lambda^2}$	$\left(\frac{\lambda}{\lambda-t}\right)^\theta\ \forall t < \lambda$