Ley de Probabilidad	Función Puntual de Probabilidad	Valores de la variable	Parámetros	Esperanza E[X]	Varianza Var(X)
Bernoulli	$P(X=x) = p^x (1-p)^{1-x}$	x = 0 , 1	0 [p [1	p	pq
Binomial	$P(X=x) = \binom{n}{x} p^x q^{n-x}$	x =0,1,…,n	n , p	np	npq
Poisson	$P(X=x) = \frac{\lambda^x}{x!} e^{-\lambda}$	x = 0, 1, 2, . . .	$\lambda > 0$	λ	λ
Geométrica	$P(X=x) = p\, q^x$	x = 0,1, 2, 3, . . .	0 [p [1	$\frac{q}{p}$	$\frac{q}{p^2}$
Binomial Negativa	$P(X=x) = \binom{x+r-1}{x} q^x p^r$	x = 0,1, 2, 3, . . .	r ; 0 [p [1	$\frac{r}{p}$	$\frac{rq}{p^2}$
Hipergeométrica	$P(X=x)=\frac{\binom{Np}{x}\binom{Nq}{n-x}}{\binom{N}{n}}$	Max(0,n-Nq) [x [Min(n,Np)	N=1,2,… n=1,2,…,N p=0, $\frac{1}{p}$,…,1	np	$n\,p\,q\left(\frac{N-n}{N-1}\right)$

Ley de Probabilidad	Función de Densidad	Valores de la variable	Parámetros	Esperanza E[X]	Varianza Var(X)
Uniforme	$f(x)=\frac{1}{b-a}$	$a < x < b$	$a \,;\, b$	$\frac{a+b}{2}$	$\frac{(b-a)^2}{12}$
Normal	$f(x)=\frac{1}{\sigma\sqrt{2\pi}}\exp\left\{-\frac{(x-\mu)^2}{2\sigma^2}\right\}$	$-\infty < x < \infty$	$\mu \,,\, \sigma$	μ	σ^2
Exponencial	$f(x)=\lambda\, e^{-\lambda x}$	$x > 0$	λ	$\frac{1}{\lambda}$	$\frac{1}{\lambda^2}$
Gamma	$f(x)=\frac{a^p}{\Gamma(p)}e^{-ax}x^{p-1}$	$x > 0$	$p > 0 \,;\, a > 0$	$\frac{p}{a}$	$\frac{p}{a^2}$
Beta	$f(x)=\frac{1}{\beta(p,q)}x^{p-1}(1-x)^{q-1}$	0 [x [1	$p > 0 \,;\, q > 0$	$\frac{p}{p+q}$	$\frac{pq}{(p+q)^2(p+q+1)}$
Pareto	$f(x)=\frac{\alpha}{x}\left(\frac{x_0}{x}\right)^{\alpha}$	$x \geq x_0$	$\alpha \,;\, x_0$	$\frac{\alpha x_0}{(\alpha-1)}$	$\frac{\alpha x_0^2}{(\alpha-2)(\alpha-1)^2}$