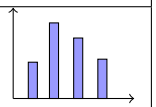
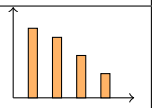
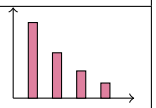
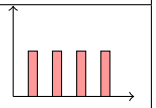
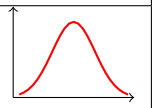
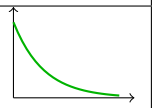
Catálogo de Distribuciones de Probabilidad

Distribución	Nom.	Función	$E[X]$	$Var(X)$	$M_X(t)$	Gráfica
Distribuciones Discretas						
Binomial	$B(n,p)$	$\binom{n}{x}p^x(1-p)^{n-x}$	np	$np(1-p)$	$(1-p+pe^t)^n$	
Poisson	$P(\lambda)$	$\frac{e^{-\lambda}\lambda^x}{x!}$	λ	λ	$e^{\lambda(e^t-1)}$	
Geométrica	$Geom(p)$	$(1-p)^{x-1}p$	$\frac{1}{p}$	$\frac{1-p}{p^2}$	$\frac{pe^t}{1-(1-p)e^t}$	
Uniforme Discreta	$U\{1,\ldots,n\}$	$\frac{1}{n}$	$\frac{n+1}{2}$	$\frac{n^2-1}{12}$	$\frac{e^t(1-e^{nt})}{n(1-e^t)}$	
Distribuciones Continuas						
Normal	$N(\mu,\sigma^2)$	$\frac{1}{\sigma\sqrt{2\pi}}e^{-\frac{1}{2}(\frac{x-\mu}{\sigma})^2}$	μ	σ^2	$e^{\mu t+\frac{\sigma^2t^2}{2}}$	
Exponencial	$Exp(\lambda)$	$\lambda e^{-\lambda x}$	$\frac{1}{\lambda}$	$\frac{1}{\lambda^2}$	$\frac{\lambda}{\lambda-t}$	
Uniforme	$U(a,b)$	$\frac{1}{b-a}$	$\frac{a+b}{2}$	$\frac{(b-a)^2}{12}$	$\frac{e^{tb}-e^{ta}}{t(b-a)}$