

Legea	Denumirea	Valoarea medie și dispersia
$\mathcal{U}(N)$	unid	$E(X) = \frac{N+1}{2}, Var(X) = \frac{N^2-1}{12}$
$\mathcal{B}(n, p)$	bino	$E(X) = np, Var(X) = np(1-p)$
$\mathcal{H}(n, M, K)$	hyge	$E(X) = n \frac{K}{M}, Var(X) = n \frac{K}{M} \frac{M-K}{M} \frac{M-n}{M-1}$
$\mathcal{P}o(\lambda)$	poiss	$E(X) = \lambda, Var(X) = \lambda$
$\mathcal{BN}(r, p)$	nbin	$E(X) = \frac{r(1-p)}{p}, Var(X) = \frac{r(1-p)}{p^2}$
$\mathcal{G}e(p)$	geo	$E(X) = \frac{1-p}{p}, Var(X) = \frac{1-p}{p^2}$
$\mathcal{U}(a, b)$	unif	$E(X) = \frac{a+b}{2}, Var(X) = \frac{(b-a)^2}{12}$
$\mathcal{N}(\mu, \sigma)$	norm	$E(X) = \mu, Var(X) = \sigma^2$
$\mathcal{LN}(\mu, \sigma)$	logn	$E(X) = e^{\mu + \frac{\sigma^2}{2}}, Var(X) = e^{2\mu + 2\sigma^2} - e^{2\mu + \sigma^2}$
$\mathcal{G}a(a, b)$	gam	$E(X) = ab, Var(X) = ab^2$
$\mathcal{E}xp(\mu)$	exp	$E(X) = \mu, Var(X) = \mu^2$
$\mathcal{B}eta(a, b)$	beta	$E(X) = \frac{a}{a+b}, Var(X) = \frac{ab}{(a+b+1)(a+b)^2}$
$\mathcal{W}(a, b)$	weib	$E(X) = a^{-\frac{1}{b}} \Gamma\left(1 + \frac{1}{b}\right),$ $Var(X) = a^{-\frac{2}{b}} \left[ \Gamma\left(1 + \frac{2}{b}\right) - \Gamma^2\left(1 + \frac{1}{b}\right) \right]$
$\mathcal{R}(b)$	rayl	$E(X) = b\sqrt{\frac{\pi}{2}}, Var(X) = \frac{4-\pi}{2} b^2$
$\mathcal{T}(n)$	t	$E(X) = 0, Var(X) = \frac{n}{n-2}, n > 2$
$\mathcal{T}nc(n, \delta)$	nct	$E(X) = \frac{\delta \sqrt{\frac{n}{2}} \Gamma\left(\frac{n-1}{2}\right)}{\Gamma\left(\frac{n}{2}\right)},$ $Var(X) = \frac{n(1+\delta^2)}{n-2} - \frac{n\delta^2}{2} \left[ \frac{\Gamma\left(\frac{n-1}{2}\right)}{\Gamma\left(\frac{n}{2}\right)} \right]^2, n > 2$
$\chi^2(n)$	chi2	$E(X) = n, Var(X) = 2n$
$\chi^2(n, \delta)$	ncx2	$E(X) = n + \delta, Var(X) = 2(n + 2\delta)$
$\mathcal{F}(m, n)$	f	$E(X) = \frac{n}{n-2}, n > 2,$ $Var(X) = \frac{2n^2(m+n-2)}{m(n-2)^2(n-4)}, n > 4$
$\mathcal{F}nc(m, n, \delta)$	ncf	$E(X) = \frac{n(m+\delta)}{m(n-2)}, n > 2,$ $Var(X) = 2 \left( \frac{n}{m} \right)^2 \frac{(m+\delta)^2 + (m+2\delta)(n-2)}{(n-2)^2(n-4)}, n > 4$

Tabelul 2.1: Tabelul valorilor medii și dispersiilor