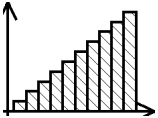
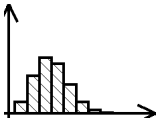
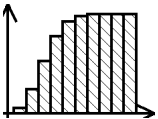
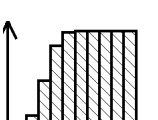
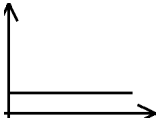
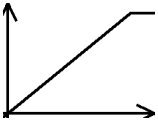
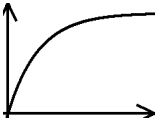
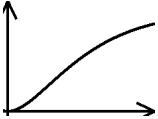
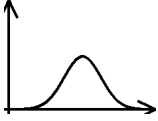
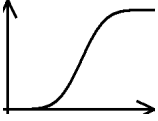


Diskrete Verteilungen

Gleichverteilung von 1 bis N	$p_k = \frac{1}{N}$		$P_k = \frac{k}{N}$		$\mu = \frac{N+1}{2} \quad \sigma = \sqrt{\frac{N^2-1}{12}}$
Exponentialverteilung (geometrische Verteilung)	$p_k = p(1-p)^{k-1}$		$P_k = 1 - (1-p)^k$		$\mu = \frac{1}{p} \quad \sigma = \frac{\sqrt{1-p}}{p}$
Binomialverteilung	$p_k = \binom{n}{k} p^k (1-p)^{n-k}$		$P_k = \sum_{i_0}^k \binom{n}{i} p^i (1-p)^{n-i}$		$\mu = np \quad \sigma = \sqrt{np(1-p)}$
Hypergeometrische Verteilung	$p_k = \frac{\binom{M}{k} \binom{N-M}{n-k}}{\binom{N}{n}}$		$P_k = \sum_{i_0}^k \frac{\binom{M}{i} \binom{N-M}{n-i}}{\binom{N}{n}}$		$\mu = n \frac{M}{N} \quad \text{(zu kompliziert)}$

Kontinuierliche Verteilungen

Gleichverteilung von 0 bis N	$f(x) = \frac{1}{N}$		$F(x) = \frac{x}{N}$		$\mu = \frac{N}{2} \quad \sigma = \frac{N}{\sqrt{12}}$
Exponentialverteilung	$f(x) = \lambda e^{-\lambda x}$		$F(x) = 1 - e^{-\lambda x}$		$\mu = \frac{1}{\lambda} \quad \sigma = \frac{1}{\lambda}$
Gammaverteilung	$f(x) = \lambda^2 x e^{-\lambda x}$		$F(x) = 1 - (\lambda x + 1) e^{-\lambda x}$		$\mu = \frac{2}{\lambda} \quad \sigma = \frac{\sqrt{2}}{\lambda}$
Normalverteilung	$f(x) = \frac{1}{\sqrt{2\pi\sigma^2}} e^{-\frac{(x-\mu)^2}{2\sigma^2}}$		$F(x) = \int_{-\infty}^x \frac{1}{\sqrt{2\pi\sigma^2}} e^{-\frac{(\xi-\mu)^2}{2\sigma^2}} d\xi$		$\mu \quad \sigma$