Continuous Distributions

Mathematics

The standard densities, with the first two moments of each.

Standard densities and their first two moments.

Distribution	Mean	Variance
Uniform(a, b)	$(a + b)/2$	$(b - a)^2/12$
Normal(μ, σ^2)	μ	σ^2
Exponential(λ)	$1/\lambda$	$1/\lambda^2$
Gamma(k, λ)	k/λ	k/λ^2
Chi-square, k d.f.	k	$2k$
Student t, k > 2	0	$k/(k - 2)$

The exponential is memoryless: how long you have waited says nothing about how much longer. No other continuous law does that.