

POSSIBLY USEFUL FACTS

Three distributions are defined by the following table for parameters $A > 0$ and $B > 0$. The mean of each distribution, as a function of A and B , is also given.

notation	density function	mean
Beta(A, B)	$\frac{\Gamma(A+B)}{\Gamma(A)\Gamma(B)} x^{A-1} (1-x)^{B-1}, \quad 0 < x < 1$	$A/(A+B)$
Gamma(A, B)	$\frac{B^A}{\Gamma(A)} x^{A-1} e^{-Bx}, \quad x > 0$	A/B
Inverse-Gamma(A, B)	$\frac{B^A}{\Gamma(A)} x^{-A-1} e^{-B/x}, \quad x > 0$	$B/(A-1)$ provided $A > 1$