"GammaRV(a,b)"

$$[x \mapsto \frac{a\ (a\,x)^{b-1}\,\mathrm{e}^{-a\,x}}{\Gamma\,(b)}]$$

$$t \mapsto t^2$$

Probability Distribution Function

$$f(x) = 1/2\,\frac{a^b x^{b/2-1}\mathrm{e}^{-a\,\sqrt{x}}}{\Gamma\,(b)} \qquad 0 < x < \infty$$

$$t \mapsto \sqrt{t}$$

Probability Distribution Function

$$f(x) = 2\,\frac{a^b\,(x^2)^b\,\mathrm{e}^{-a\,x^2}}{x\Gamma\,(b)} \qquad 0 < x < \infty$$

$$t \mapsto t^{-1}$$

Probability Distribution Function

$$f(x) = \frac{a^b\,(x^{-1})^b}{x\Gamma\,(b)}\mathrm{e}^{-\frac{a}{x}} \qquad 0 < x < \infty$$

$$t \mapsto \arctan\,(t)$$

Probability Distribution Function

$$f(x) = \frac{a^b\,(\tan\,(x))^{b-1}\,\mathrm{e}^{-a\,\tan(x)}\,\left(1 + (\tan\,(x))^2\right)}{\Gamma\,(b)} \qquad 0 < x < \pi/2$$

$$t \mapsto \mathrm{e}^t$$

Probability Distribution Function

$$f(x) = \frac{a^b \left(\ln(x)\right)^{b-1} x^{-a-1}}{\Gamma(b)} \qquad 1 < x < \infty$$

$$t \mapsto \ln(t)$$

Probability Distribution Function

$$f(x) = \frac{a^b e^{-a\,e^x + xb}}{\Gamma(b)} \qquad -\infty < x < \infty$$

$$t \mapsto e^{-t}$$

Probability Distribution Function

$$f(x) = \frac{a^b \left(-\ln(x)\right)^{b-1} x^{a-1}}{\Gamma(b)} \qquad 0 < x < 1$$

$$t \mapsto -\ln(t)$$

Probability Distribution Function

$$f(x) = \frac{a^b e^{-a\,e^{-x} - xb}}{\Gamma(b)} \qquad -\infty < x < \infty$$

$$t \mapsto \ln(t+1)$$

Probability Distribution Function

$$f(x) = \frac{a^b \left(e^x - 1\right)^{b-1} e^{-a\,e^x + a + x}}{\Gamma(b)} \qquad 0 < x < \infty$$

$$t \mapsto \left(\ln(t+2)\right)^{-1}$$

Probability Distribution Function

$$f(x) = \frac{a^b \left(e^{x^{-1}} - 2\right)^{b-1}}{\Gamma(b)\, x^2} e^{-\frac{a\, x e^{x^{-1}} - 2\, a\, x - 1}{x}} \qquad 0 < x < (\ln(2))^{-1}$$

$$t \mapsto \tanh(t)$$

Probability Distribution Function

$$f(x) = -\frac{a^b (\operatorname{arctanh}(x))^{b-1} e^{-a \operatorname{arctanh}(x)}}{(x^2 - 1)\, \Gamma(b)} \qquad 0 < x < 1$$

$$t \mapsto \sinh(t)$$

Probability Distribution Function

$$f(x) = \frac{a^b (\operatorname{arcsinh}(x))^{b-1} e^{-a \operatorname{arcsinh}(x)}}{\Gamma(b) \sqrt{x^2 + 1}} \qquad 0 < x < \infty$$

$$t \mapsto \operatorname{arcsinh}(t)$$

Probability Distribution Function

$$f(x) = \frac{a^b (\sinh(x))^{b-1} e^{-a \sinh(x)} \cosh(x)}{\Gamma(b)} \qquad 0 < x < \infty$$

$$t \mapsto \operatorname{csch}(t + 1)$$

Probability Distribution Function

$$f(x) = \frac{a^b (-1 + \operatorname{arccsch}(x))^{b-1} e^{-a(-1 + \operatorname{arccsch}(x))}}{\sqrt{x^2 + 1}\Gamma(b)\, |x|} \qquad 0 < x < 2 \left(e - e^{-1}\right)^{-1}$$

$$t \mapsto \operatorname{arccsch}(t + 1)$$

Probability Distribution Function

$$f(x) = -\frac{a^b \cosh(x)}{\Gamma(b)(\sinh(x)-1)\sinh(x)} \left(-\frac{\sinh(x)-1}{\sinh(x)}\right)^b e^{\frac{a(\sinh(x)-1)}{\sinh(x)}} \qquad 0 < x < \ln\left(1+\sqrt{2}\right)$$

$$t \mapsto (\tanh(t+1))^{-1}$$

Probability Distribution Function

$$f(x) = \frac{a^b \left(-1+\operatorname{arctanh}(x^{-1})\right)^{b-1} e^{-a\left(-1+\operatorname{arctanh}\left(x^{-1}\right)\right)}}{\Gamma(b)(x^2-1)} \qquad 1 < x < \frac{e+e^{-1}}{e-e^{-1}}$$

$$t \mapsto (\sinh(t+1))^{-1}$$

Probability Distribution Function

$$f(x) = \frac{a^b \left(-1+\operatorname{arcsinh}(x^{-1})\right)^{b-1} e^{-a\left(-1+\operatorname{arcsinh}\left(x^{-1}\right)\right)}}{\sqrt{x^2+1}\Gamma(b)|x|} \qquad 0 < x < 2\left(e-e^{-1}\right)^{-1}$$

$$t \mapsto (\operatorname{arcsinh}(t+1))^{-1}$$

Probability Distribution Function

$$f(x) = \frac{a^b \left(-1+\sinh(x^{-1})\right)^{b-1} e^{-a\left(-1+\sinh\left(x^{-1}\right)\right)} \cosh(x^{-1})}{\Gamma(b)x^2} \qquad 0 < x < \left(\ln\left(1+\sqrt{2}\right)\right)^{-1}$$

$$t \mapsto (\operatorname{csch}(t))^{-1} + 1$$

Probability Distribution Function

$$f(x) = \frac{a^b \left(\operatorname{arccsch}\left((x-1)^{-1}\right)\right)^{b-1} e^{-a \operatorname{arccsch}\left((x-1)^{-1}\right)}}{\sqrt{x^2-2x+2}\Gamma(b)} \qquad 1 < x < \infty$$

$$t \mapsto \tanh\left(t^{-1}\right)$$

Probability Distribution Function

$$f(x) = -\frac{a^b \left((\operatorname{arctanh}(x))^{-1} \right)^b}{\operatorname{arctanh}(x)\,(x^2-1)\,\Gamma(b)} \mathrm{e}^{-\frac{a}{\operatorname{arctanh}(x)}} \qquad 0 < x < 1$$

$$t \mapsto \operatorname{csch}\left(t^{-1}\right)$$

Probability Distribution Function

$$f(x) = \frac{a^b (\operatorname{arccsch}(x))^{-b-1}}{\sqrt{x^2+1}\Gamma(b)\,|x|} \mathrm{e}^{-\frac{a}{\operatorname{arccsch}(x)}} \qquad 0 < x < \infty$$

$$t \mapsto \operatorname{arccsch}\left(t^{-1}\right)$$

Probability Distribution Function

$$f(x) = \frac{a^b (\sinh(x))^{b-1} \mathrm{e}^{-a \sinh(x)} \cosh(x)}{\Gamma(b)} \qquad 0 < x < \infty$$