"HypoExponentialRV([a,b,c])"

$$[z \mapsto \frac{c\,b\,a\,\left(e^{-c\,z}a - e^{-c\,z}b + e^{-a\,z}b - e^{-a\,z}c - e^{-b\,z}a + e^{-b\,z}c\right)}{(a-b)\,(a-c)\,(b-c)}]$$

$$t \mapsto t^2$$

Probability Distribution Function

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

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

Probability Distribution Function

$$f(x) = 2\,\frac{c\,b\,a\,\left(e^{-c\,x^2}a - e^{-c\,x^2}b + e^{-a\,x^2}b - e^{-a\,x^2}c - e^{-b\,x^2}a + e^{-b\,x^2}c\right)x}{(a-b)\,(a-c)\,(b-c)} \qquad 0 < x < \infty$$

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

Probability Distribution Function

$$f(x) = \frac{c\,b\,a}{(a-b)\,(a-c)\,(b-c)\,x^2}\left(e^{-\frac{c}{x}}a - e^{-\frac{c}{x}}b + e^{-\frac{a}{x}}b - e^{-\frac{a}{x}}c - e^{-\frac{b}{x}}a + e^{-\frac{b}{x}}c\right) \qquad 0 < x < \infty$$

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

Probability Distribution Function

$$f(x) = \frac{c\,b\,a\,\left(e^{-c\,\tan(x)}a - e^{-c\,\tan(x)}b + e^{-a\,\tan(x)}b - e^{-a\,\tan(x)}c - e^{-b\,\tan(x)}a + e^{-b\,\tan(x)}c\right)\left(1 + (\tan\right.}{(a-b)\,(a-c)\,(b-c)}$$

$$t \mapsto e^t$$

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

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

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

Probability Distribution Function

$$f(x) = \frac{c\,b\,a\,\left(\mathrm{e}^{-c\left(\mathrm{e}^{x^{-1}}-2\right)}a - \mathrm{e}^{-c\left(\mathrm{e}^{x^{-1}}-2\right)}b + \mathrm{e}^{-a\left(\mathrm{e}^{x^{-1}}-2\right)}b - \mathrm{e}^{-a\left(\mathrm{e}^{x^{-1}}-2\right)}c - \mathrm{e}^{-b\left(\mathrm{e}^{x^{-1}}-2\right)}a + \mathrm{e}^{-b\left(\mathrm{e}\right.}\right.}{(b-c)\,(a-c)\,(a-b)\,x^2}$$

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

Probability Distribution Function

$$f(x) = -\frac{c\,b\,a\,\left(\mathrm{e}^{-c\,\mathrm{arctanh}(x)}a - \mathrm{e}^{-c\,\mathrm{arctanh}(x)}b + \mathrm{e}^{-a\,\mathrm{arctanh}(x)}b - \mathrm{e}^{-a\,\mathrm{arctanh}(x)}c - \mathrm{e}^{-b\,\mathrm{arctanh}(x)}a + \mathrm{e}^{-b\,\mathrm{a}}\right.}{(b-c)\,(a-c)\,(a-b)\,(x^2-1)}$$

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

Probability Distribution Function

$$f(x) = \frac{c\,b\,a\,\left(\mathrm{e}^{-c\,\mathrm{arcsinh}(x)}a - \mathrm{e}^{-c\,\mathrm{arcsinh}(x)}b + \mathrm{e}^{-a\,\mathrm{arcsinh}(x)}b - \mathrm{e}^{-a\,\mathrm{arcsinh}(x)}c - \mathrm{e}^{-b\,\mathrm{arcsinh}(x)}a + \mathrm{e}^{-b\,\mathrm{arcsin}}\right.}{(b-c)\,(a-c)\,(a-b)\,\sqrt{x^2+1}}$$

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

Probability Distribution Function

$$f(x) = \frac{c\,b\,a\,\left(\mathrm{e}^{-c\,\sinh(x)}a - \mathrm{e}^{-c\,\sinh(x)}b + \mathrm{e}^{-a\,\sinh(x)}b - \mathrm{e}^{-a\,\sinh(x)}c - \mathrm{e}^{-b\,\sinh(x)}a + \mathrm{e}^{-b\,\sinh(x)}c\right)\cosh(}{(b-c)\,(a-c)\,(a-b)}$$

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

Probability Distribution Function

$$f(x) = \frac{c\,b\,a\,\left(\mathrm{e}^{-c\,(-1+\mathrm{arccsch}(x))}a - \mathrm{e}^{-c\,(-1+\mathrm{arccsch}(x))}b + \mathrm{e}^{-a\,(-1+\mathrm{arccsch}(x))}b - \mathrm{e}^{-a\,(-1+\mathrm{arccsch}(x))}c - \mathrm{e}^{-b}\right.}{(b-c)\,(a-c)\,(a-b)\,\sqrt{x^2+1}\,|x|}$$

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

Probability Distribution Function

$$f(x) = \frac{c\,b\,a\,\cosh(x)}{(b-c)(a-c)(a-b)(\sinh(x))^2}\left(\mathrm{e}^{\frac{c(\sinh(x)-1)}{\sinh(x)}}a - \mathrm{e}^{\frac{c(\sinh(x)-1)}{\sinh(x)}}b + \mathrm{e}^{\frac{a(\sinh(x)-1)}{\sinh(x)}}b - \mathrm{e}^{\frac{a(\sinh(x)-1)}{\sinh(x)}}c$$

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

Probability Distribution Function

$$f(x) = \frac{c\,b\,a\left(\mathrm{e}^{-c\left(-1+\operatorname{arctanh}\left(x^{-1}\right)\right)}a - \mathrm{e}^{-c\left(-1+\operatorname{arctanh}\left(x^{-1}\right)\right)}b + \mathrm{e}^{-a\left(-1+\operatorname{arctanh}\left(x^{-1}\right)\right)}b - \mathrm{e}^{-a\left(-1+\operatorname{arctanh}\right.}\right.}{(b-c)(a-c)(a-b)(x^2-1)}$$

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

Probability Distribution Function

$$f(x) = \frac{c\,b\,a\left(\mathrm{e}^{-c\left(-1+\operatorname{arcsinh}\left(x^{-1}\right)\right)}a - \mathrm{e}^{-c\left(-1+\operatorname{arcsinh}\left(x^{-1}\right)\right)}b + \mathrm{e}^{-a\left(-1+\operatorname{arcsinh}\left(x^{-1}\right)\right)}b - \mathrm{e}^{-a\left(-1+\operatorname{arcsinh}\right.}\right.}{(b-c)(a-c)(a-b)\sqrt{x^2+1}\,|x|}$$

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

Probability Distribution Function

$$f(x) = \frac{c\,b\,a\left(\mathrm{e}^{-c\left(-1+\sinh\left(x^{-1}\right)\right)}a - \mathrm{e}^{-c\left(-1+\sinh\left(x^{-1}\right)\right)}b + \mathrm{e}^{-a\left(-1+\sinh\left(x^{-1}\right)\right)}b - \mathrm{e}^{-a\left(-1+\sinh\left(x^{-1}\right)\right)}c - \right.}{(b-c)(a-c)(a-b)\,x^2}$$

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

Probability Distribution Function

$$f(x) = \frac{c\,b\,a\left(\mathrm{e}^{-c\,\operatorname{arccsch}\left((x-1)^{-1}\right)}a - \mathrm{e}^{-c\,\operatorname{arccsch}\left((x-1)^{-1}\right)}b + \mathrm{e}^{-a\,\operatorname{arccsch}\left((x-1)^{-1}\right)}b - \mathrm{e}^{-a\,\operatorname{arccsch}\left((x-1)^{-1}\right)}c - \right.}{\sqrt{x^2-2\,x+2}\,(b-c)(a-c)(a-b)}$$

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

Probability Distribution Function

$$f(x) = -\frac{c\,b\,a}{(b-c)\,(a-c)\,(a-b)\,(\operatorname{arctanh}(x))^2\,(x^2-1)}\left(\mathrm{e}^{-\frac{c}{\operatorname{arctanh}(x)}}a - \mathrm{e}^{-\frac{c}{\operatorname{arctanh}(x)}}b + \mathrm{e}^{-\frac{a}{\operatorname{arctanh}(x)}}b -$$

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

Probability Distribution Function

$$f(x) = \frac{c\,b\,a}{(b-c)\,(a-c)\,(a-b)\,\sqrt{x^2+1}\,(\operatorname{arccsch}(x))^2\,|x|}\left(\mathrm{e}^{-\frac{c}{\operatorname{arccsch}(x)}}a - \mathrm{e}^{-\frac{c}{\operatorname{arccsch}(x)}}b + \mathrm{e}^{-\frac{a}{\operatorname{arccsch}(x)}}b -$$

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

Probability Distribution Function

$$f(x) = \frac{c\,b\,a\,\left(\mathrm{e}^{-c\,\sinh(x)}a - \mathrm{e}^{-c\,\sinh(x)}b + \mathrm{e}^{-a\,\sinh(x)}b - \mathrm{e}^{-a\,\sinh(x)}c - \mathrm{e}^{-b\,\sinh(x)}a + \mathrm{e}^{-b\,\sinh(x)}c\right)\cosh(}{(b-c)\,(a-c)\,(a-b)}$$