"i is", 19,

" ----------"

$$g := t \to \frac{1}{\operatorname{csch}(t)} + 1$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \to \frac{4 \operatorname{arccsch}\left(\frac{1}{y\sim - 1}\right)}{\sqrt{y\sim^2 - 2\,y\sim + 2}\,\left(y\sim - 1 + \sqrt{y\sim^2 - 2\,y\sim + 2}\right)^2} \right], [1, \infty], ["Continuous", "PDF"]\right]$$

"l and u", 0, ∞

"g(x)", $\frac{1}{\operatorname{csch}(x)} + 1$, "base", $4\,x\,e^{-2x}$, "GammaRV(2,2)"

"f(x)", $\frac{4 \operatorname{arccsch}\left(\frac{1}{x-1}\right)}{\sqrt{x^2 - 2x + 2}\,\left(x - 1 + \sqrt{x^2 - 2x + 2}\right)^2}$

"F(x)", $4\left(\int_1^x \frac{\operatorname{arccsch}\left(\frac{1}{t-1}\right)}{\sqrt{t^2 - 2t + 2}\,\left(t - 1 + \sqrt{t^2 - 2t + 2}\right)^2}\,dt\right)$

"IDF(x) did not work"

"S(x)", $1 - 4\left(\int_1^x \frac{\operatorname{arccsch}\left(\frac{1}{t-1}\right)}{\sqrt{t^2 - 2t + 2}\,\left(t - 1 + \sqrt{t^2 - 2t + 2}\right)^2}\,dt\right)$

"h(x)", $-\left(4 \operatorname{arccsch}\left(\frac{1}{x-1}\right)\right) \Big/ \left(\sqrt{x^2 - 2x + 2}\,\left(x - 1 + \sqrt{x^2 - 2x + 2}\right)^2 \left(-1 + 4\left(\int_1^x \frac{\operatorname{arccsch}\left(\frac{1}{t-1}\right)}{\sqrt{t^2 - 2t + 2}\,\left(t - 1 + \sqrt{t^2 - 2t + 2}\right)^2}\,dt\right)\right)\right)$

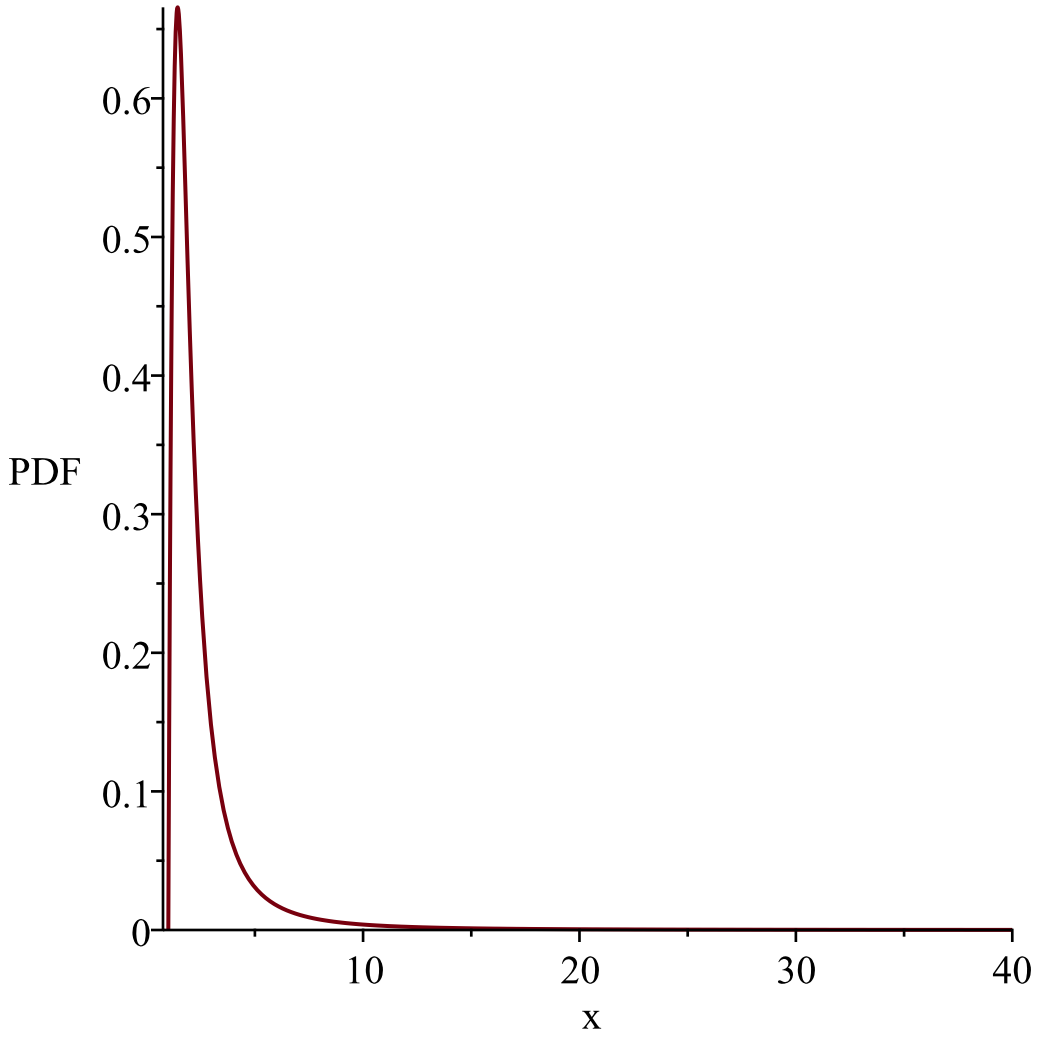
"mean and variance", $\int_1^\infty \frac{4\,x\,\operatorname{arccsch}\left(\frac{1}{x-1}\right)}{\sqrt{x^2-2\,x+2}\,\left(x-1+\sqrt{x^2-2\,x+2}\right)^2}\,dx$, ∞

$$-\left(\int_1^\infty \frac{4\,x\,\operatorname{arccsch}\left(\frac{1}{x-1}\right)}{\sqrt{x^2-2\,x+2}\,\left(x-1+\sqrt{x^2-2\,x+2}\right)^2}\,dx\right)^2$$

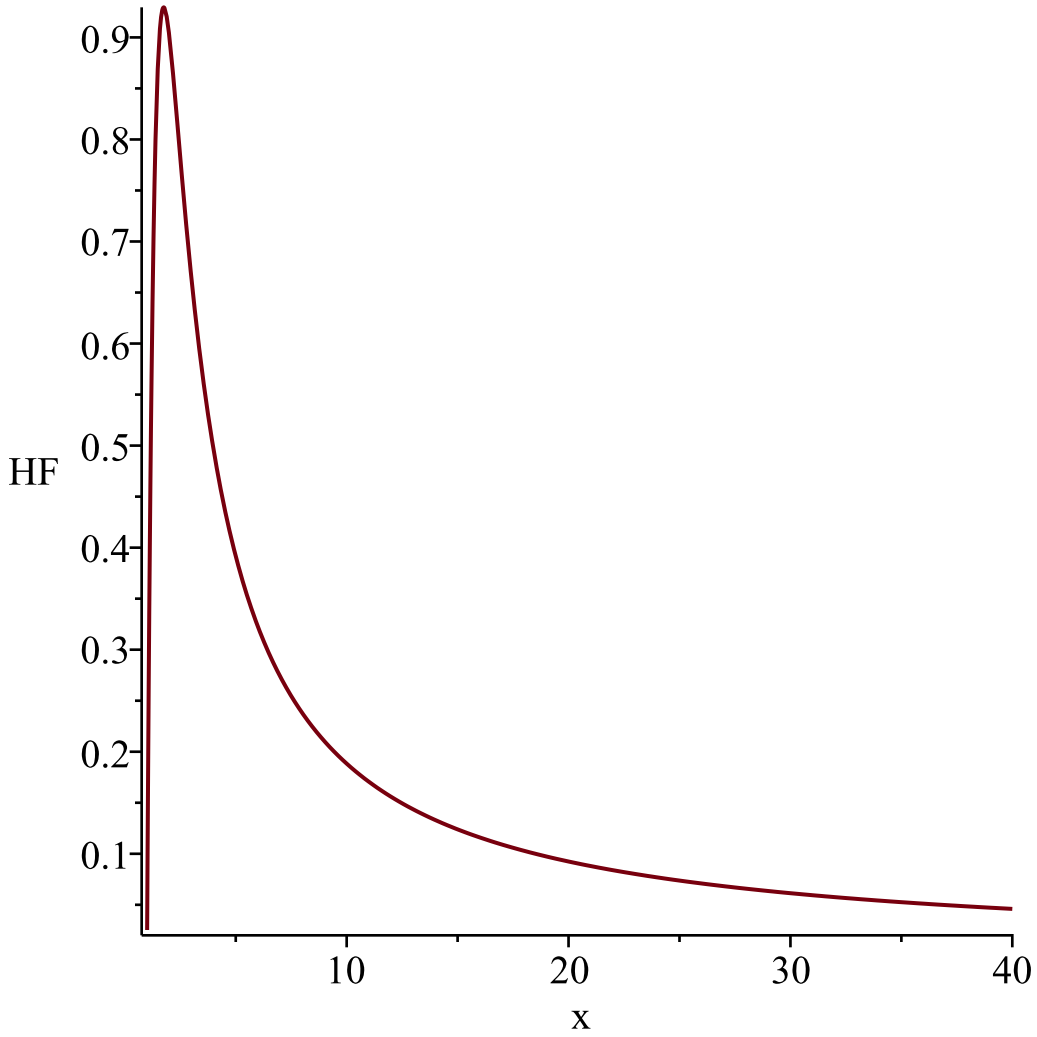
$$mf := \int_1^\infty \frac{4\,x^{r\sim}\,\operatorname{arccsch}\left(\frac{1}{x-1}\right)}{\sqrt{x^2-2\,x+2}\,\left(x-1+\sqrt{x^2-2\,x+2}\right)^2}\,dx$$

"MGF", $\int_1^\infty \frac{4\,e^{t\,x}\,\operatorname{arccsch}\left(\frac{1}{x-1}\right)}{\sqrt{x^2-2\,x+2}\,\left(x-1+\sqrt{x^2-2\,x+2}\right)^2}\,dx$

WARNING(PlotDist): Low value provided by user, 0
is less than minimum support value of random variable
1
Resetting low to RV's minimum support value



WARNING(PlotDist): Low value provided by user, 0
is less than minimum support value of random variable
1
Resetting low to RV's minimum support value




```
4\,{\frac {{\rm arccsch} \left( \left( x-1 \right) ^{-1}\right)}
{
\sqrt {{x}^{2}-2\,x+2} \left( x-1+\sqrt {{x}^{2}-2\,x+2} \right)
^{2}}}
}
```

"i is", 20,

" ----------"

$$g := t \to \tanh\left(\frac{1}{t}\right)$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \to -\frac{4\, e^{-\frac{2}{\operatorname{arctanh}(y\sim)}}}{\operatorname{arctanh}(y\sim)^3 \left(y\sim^2-1\right)}\right], [0, 1], ["Continuous", "PDF"]\right]$$

"l and u", 0, ∞

"g(x)", $\tanh\left(\frac{1}{x}\right)$, "base", $4\, x\, e^{-2x}$, "GammaRV(2,2)"

$$\text{"f(x)"},\ -\frac{4\,e^{-\frac{2}{\operatorname{arctanh}(x)}}}{\operatorname{arctanh}(x)^3\,\left(x^2-1\right)}$$

$$\text{"F(x)"},\ -4\left(\int_0^x \frac{e^{-\frac{2}{\operatorname{arctanh}(t)}}}{\operatorname{arctanh}(t)^3\,\left(t^2-1\right)}\,dt\right)$$

"IDF(x) did not work"

$$\text{"S(x)"},\ 1+4\left(\int_0^x \frac{e^{-\frac{2}{\operatorname{arctanh}(t)}}}{\operatorname{arctanh}(t)^3\,\left(t^2-1\right)}\,dt\right)$$

$$\text{"h(x)"},\ -\frac{4\,e^{-\frac{2}{\operatorname{arctanh}(x)}}}{\operatorname{arctanh}(x)^3\,\left(x^2-1\right)\left(1+4\left(\int_0^x \frac{e^{-\frac{2}{\operatorname{arctanh}(t)}}}{\operatorname{arctanh}(t)^3\,\left(t^2-1\right)}\,dt\right)\right)}$$

$$\text{"mean and variance"},\ -4\left(\int_0^1 \frac{x\,e^{-\frac{2}{\operatorname{arctanh}(x)}}}{\operatorname{arctanh}(x)^3\,\left(x^2-1\right)}\,dx\right),\ -4\left(\int_0^1 \frac{x^2\,e^{-\frac{2}{\operatorname{arctanh}(x)}}}{\operatorname{arctanh}(x)^3\,\left(x^2-1\right)}\,dx\right)$$

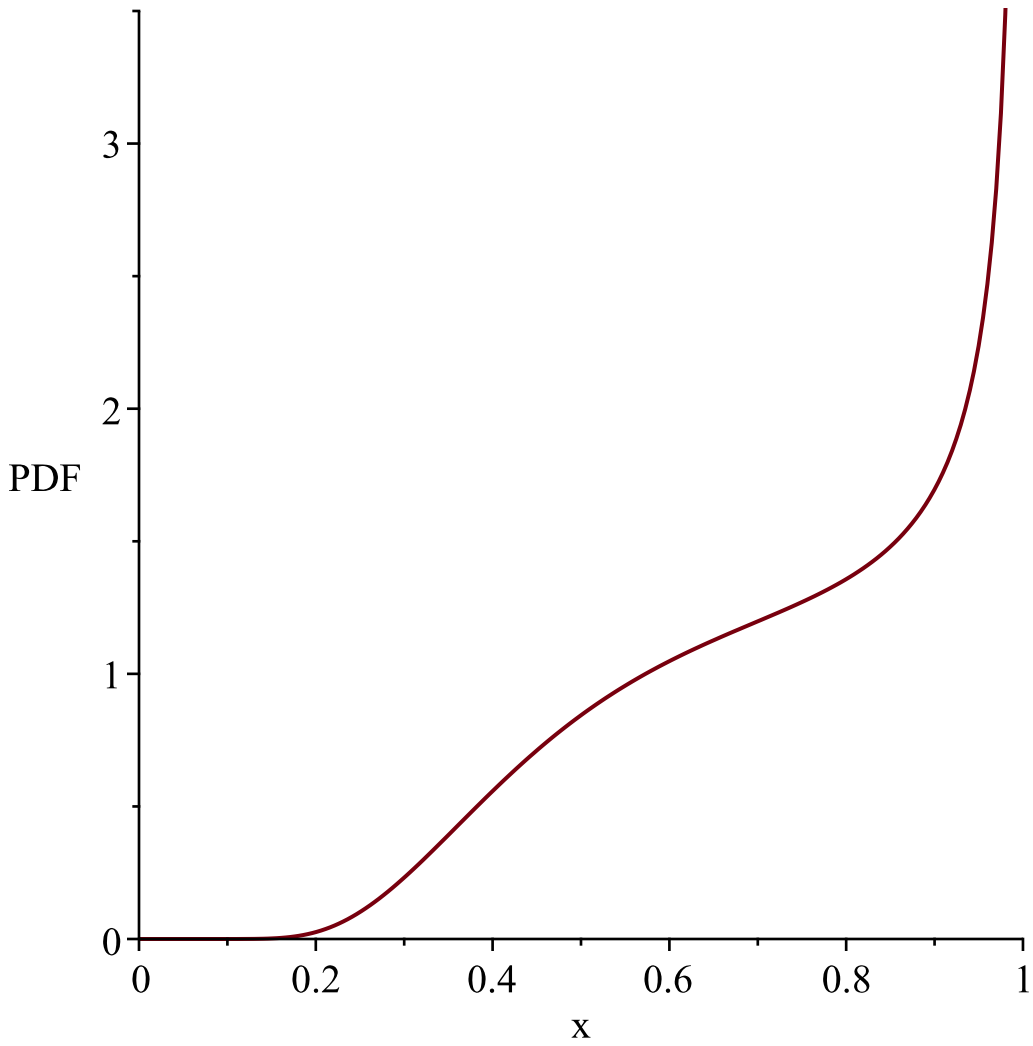
$$-16\left(\int_0^1 \frac{x\,e^{-\frac{2}{\operatorname{arctanh}(x)}}}{\operatorname{arctanh}(x)^3\,\left(x^2-1\right)}\,dx\right)^2$$

$$mf := \int_0^1 \left(-\frac{4\,x^{r\sim}\,e^{-\frac{2}{\operatorname{arctanh}(x)}}}{\operatorname{arctanh}(x)^3\,\left(x^2-1\right)}\right)dx$$

$$\text{"MGF"},\ -4\left(\int_0^1 \frac{e^{\frac{t\,x\operatorname{arctanh}(x)-2}{\operatorname{arctanh}(x)}}}{\operatorname{arctanh}(x)^3\,\left(x^2-1\right)}\,dx\right)$$

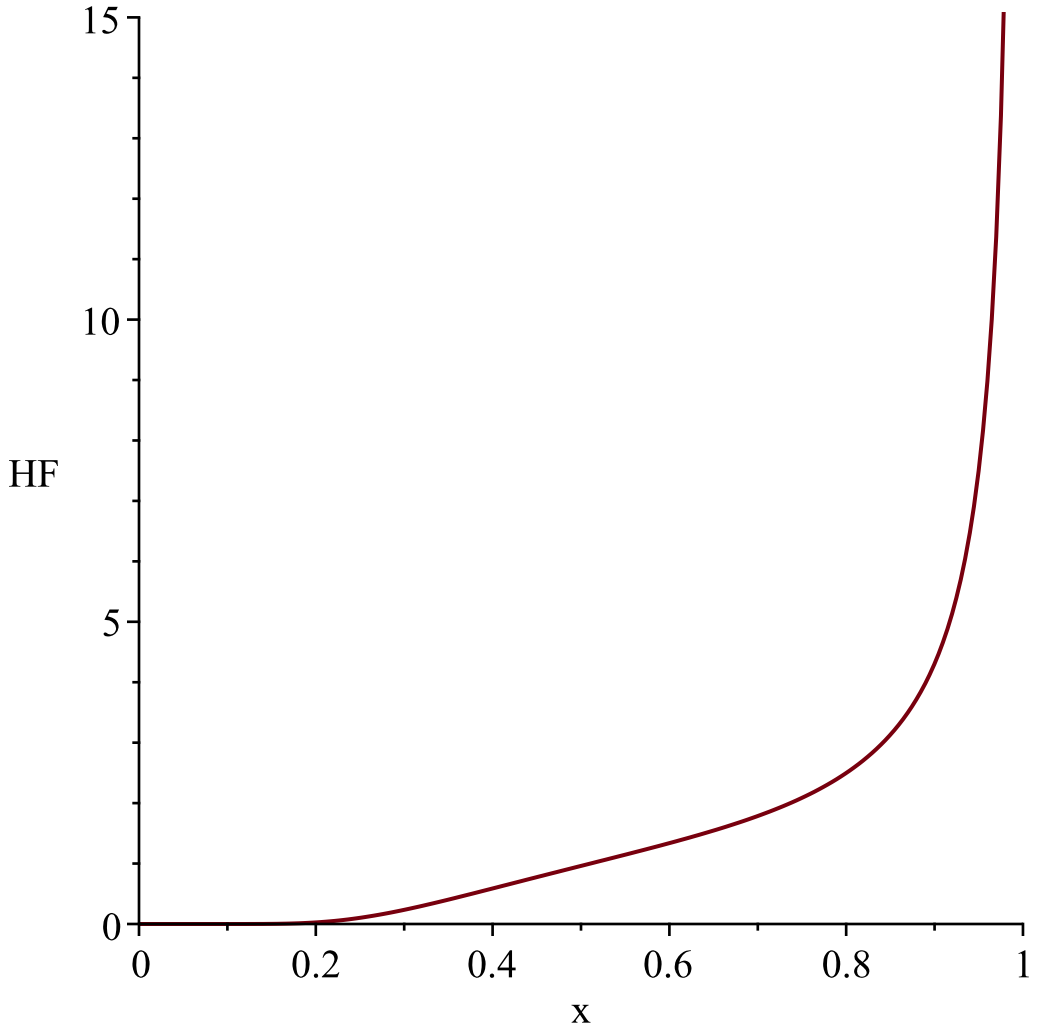
WARNING(PlotDist): High value provided by user, 40 *is greater than maximum support value of the random variable*, 1

Resetting high to RV's maximum support value



WARNING(PlotDist): High value provided by user, 40 *is greater than maximum support value of the random variable*, 1

Resetting high to RV's maximum support value




```
-4\,{\frac {1}{ \left( {\rm arctanh} \left(x\right) \right) ^{3}
 \left( {x}^{2}-1 \right) }{{\rm e}^{-2\, \left( {\rm arctanh}
\left(x
\right) \right) ^{-1}}}}
```

"i is", 21,

" ----------"

$$g := t \to \operatorname{csch}\left(\frac{1}{t}\right)$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \to \frac{4\, e^{-\frac{2}{\operatorname{arccsch}(y\sim)}}}{\sqrt{y\sim^2+1}\ \operatorname{arccsch}(y\sim)^3\, |y\sim|}\right], [0,\ \infty], ["Continuous", "PDF"]\right]$$

"l and u", 0, ∞

"g(x)", $\operatorname{csch}\left(\frac{1}{x}\right)$, "base", $4\, x\, e^{-2x}$, "GammaRV(2,2)"

$$\text{"f(x)"},\ \frac{4\,e^{-\frac{2}{\operatorname{arccsch}(x)}}}{\sqrt{x^2+1}\,\operatorname{arccsch}(x)^3\,|x|}$$

$$\text{"F(x)"},\ 4\left(\int_0^x \frac{e^{-\frac{2}{\operatorname{arccsch}(t)}}}{\sqrt{t^2+1}\,\operatorname{arccsch}(t)^3\,|t|}\,dt\right)$$

"IDF(x) did not work"

$$\text{"S(x)"},\ 1-4\left(\int_0^x \frac{e^{-\frac{2}{\operatorname{arccsch}(t)}}}{\sqrt{t^2+1}\,\operatorname{arccsch}(t)^3\,|t|}\,dt\right)$$

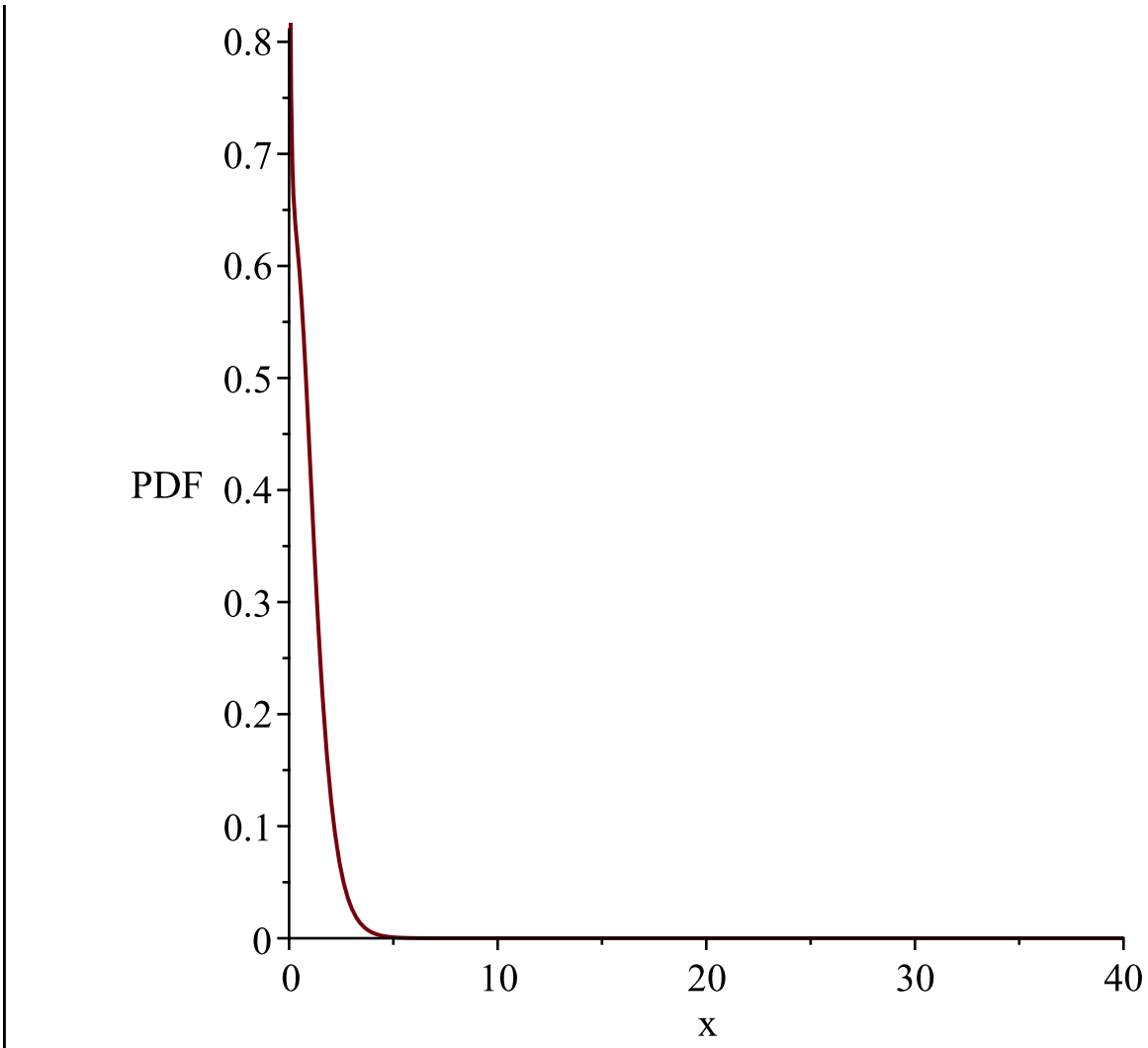
$$\text{"h(x)"},\ -\frac{4\,e^{-\frac{2}{\operatorname{arccsch}(x)}}}{\sqrt{x^2+1}\,\operatorname{arccsch}(x)^3\,|x|\left(-1+4\left(\int_0^x \frac{e^{-\frac{2}{\operatorname{arccsch}(t)}}}{\sqrt{t^2+1}\,\operatorname{arccsch}(t)^3\,|t|}\,dt\right)\right)}$$

$$\text{"mean and variance"},\ \int_0^\infty \frac{4\,e^{-\frac{2}{\operatorname{arccsch}(x)}}}{\sqrt{x^2+1}\,\operatorname{arccsch}(x)^3}\,dx,\ \int_0^\infty \frac{4\,x\,e^{-\frac{2}{\operatorname{arccsch}(x)}}}{\sqrt{x^2+1}\,\operatorname{arccsch}(x)^3}\,dx$$

$$-\left(\int_0^\infty \frac{4\,e^{-\frac{2}{\operatorname{arccsch}(x)}}}{\sqrt{x^2+1}\,\operatorname{arccsch}(x)^3}\,dx\right)^2$$

$$mf := \int_0^\infty \frac{4\,x^{r\sim}\,e^{-\frac{2}{\operatorname{arccsch}(x)}}}{\sqrt{x^2+1}\,\operatorname{arccsch}(x)^3\,|x|}\,dx$$

$$\text{"MGF"},\ \int_0^\infty \frac{4\,e^{\frac{t\,x\operatorname{arccsch}(x)-2}{\operatorname{arccsch}(x)}}}{\sqrt{x^2+1}\,\operatorname{arccsch}(x)^3\,x}\,dx$$



Warning, computation interrupted

>