

$$\sqrt{\frac{1}{\pi x^3}} \mathrm{e}^{-\frac{1}{9} \frac{(x-3)^2}{x}}$$

"i is", 2,

"-----"

$$g:=t\rightarrow\sqrt{t}$$

$$l:=0$$

$$u:=\infty$$

$$Temp:=\left[\left[y\rightsquigarrow\frac{2\,\mathrm{e}^{-\frac{1}{9}\frac{(y^2-3)^2}{y^2}}}{y\sqrt{\pi}\,|y|}\right],[0,\infty],[\text{"Continuous"},\text{"PDF"}]\right]$$

$$\text{"l and u", }0,\infty$$

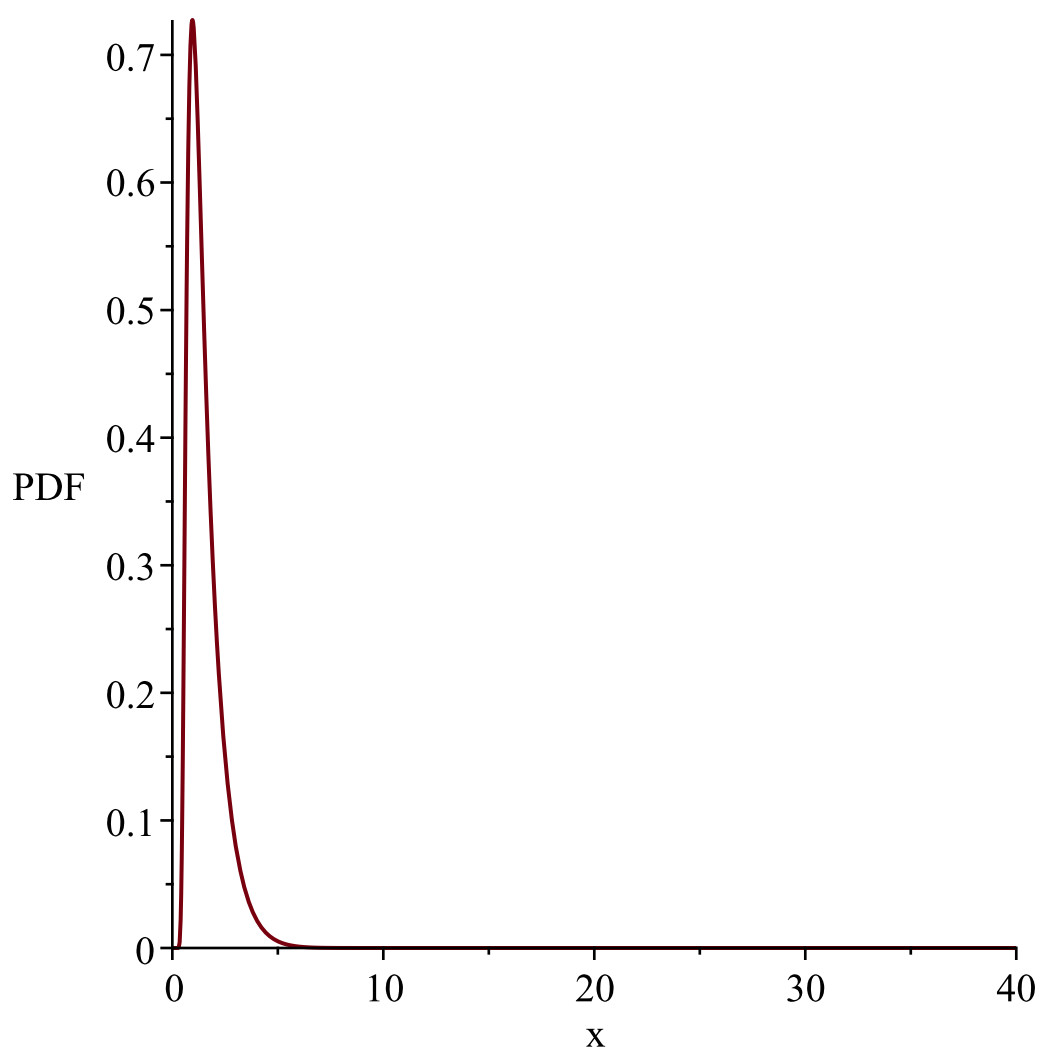
$$\text{"g(x)", }\sqrt{x},\text{"base", }\sqrt{\frac{1}{\pi x^3}}\,\mathrm{e}^{-\frac{1}{9}\frac{(x-3)^2}{x}},\text{"InverseGaussianRV(2,3)"}$$

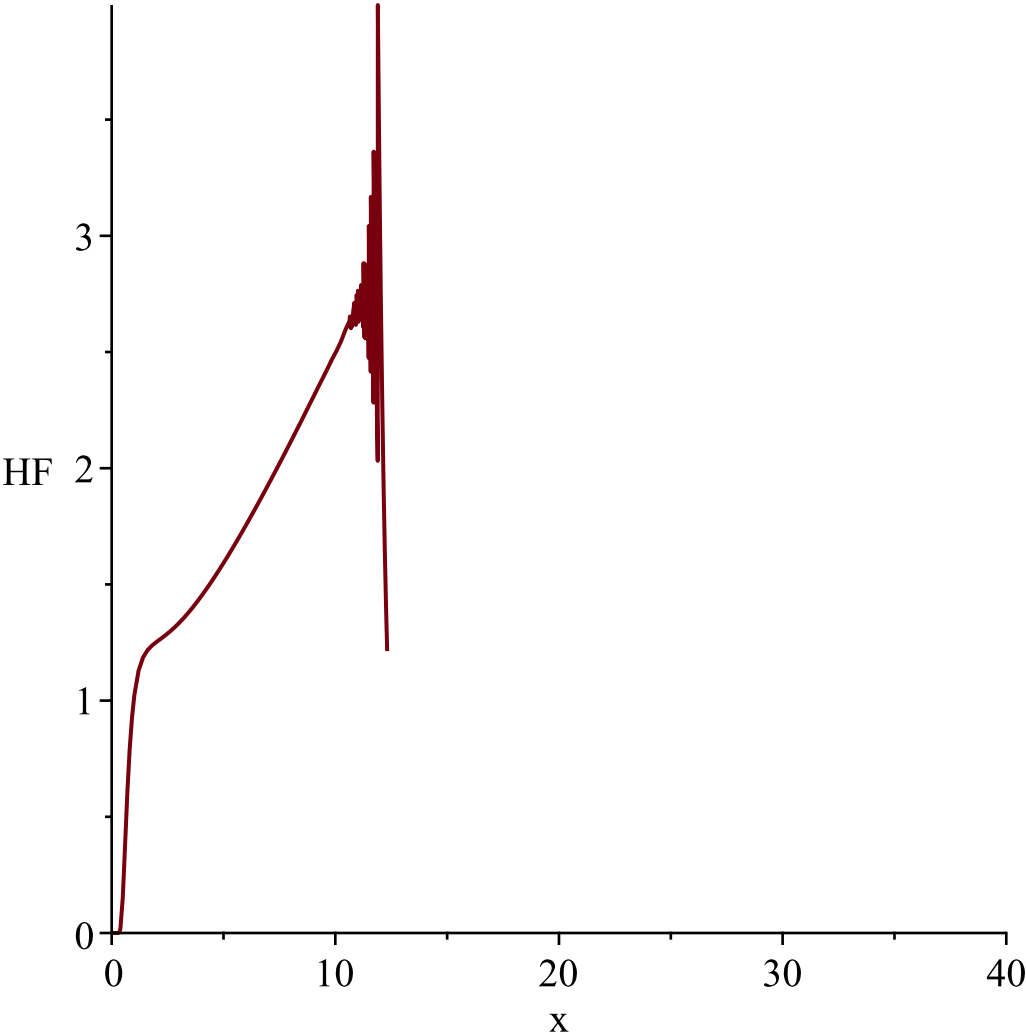
$$\text{"f(x)", }\frac{2\,\mathrm{e}^{-\frac{1}{9}\frac{(x^2-3)^2}{x^2}}}{x\sqrt{\pi}\,|x|}$$

$$\text{"S(x)", }-\frac{-\sqrt{\pi}+2\left(\int_0^x\frac{\mathrm{e}^{-\frac{1}{9}\frac{(t^2-3)^2}{t^2}}}{t\,|t|}\,\mathrm{d}t\right)}{\sqrt{\pi}}$$

$$\text{"h(x)", }-\frac{2\,\mathrm{e}^{-\frac{1}{9}\frac{(x^2-3)^2}{x^2}}}{x\,|x|\left(-\sqrt{\pi}+2\left(\int_0^x\frac{\mathrm{e}^{-\frac{1}{9}\frac{(t^2-3)^2}{t^2}}}{t\,|t|}\,\mathrm{d}t\right)\right)}$$

$$\text{"mean and variance", }\frac{2\,\mathrm{e}^{\frac{2}{3}}\,\mathrm{BesselK}\left(0,\frac{2}{3}\right)}{\sqrt{\pi}},-\frac{4\,\mathrm{e}^{\frac{4}{3}}\,\mathrm{BesselK}\left(0,\frac{2}{3}\right)^2-3\,\pi}{\pi}$$





```
2\,{\frac {1}{x\sqrt {\pi} \left| x \right| }}{{\rm e}^{\frac{-1}{9}\sqrt{\frac{\left(x^2-3\right)^2}{x^2}}}}
"i is",3,
"-----"
"-----"
```

$$g:=t\rightarrow \frac{1}{t}$$
$$l:=0$$
$$u:=\infty$$

$$Temp:=\left[\left[y\rightsquigarrow \frac{\mathrm{signum}(y\sim) \, \mathrm{e}^{\frac{-1}{9}\frac{(-1+3y\sim)^2}{y\sim}}}{\sqrt{y\sim} \, \sqrt{\pi}}\right],\left[0,\infty\right],\left["\text{Continuous}","PDF"\right]\right]$$

"l and u", 0, ∞

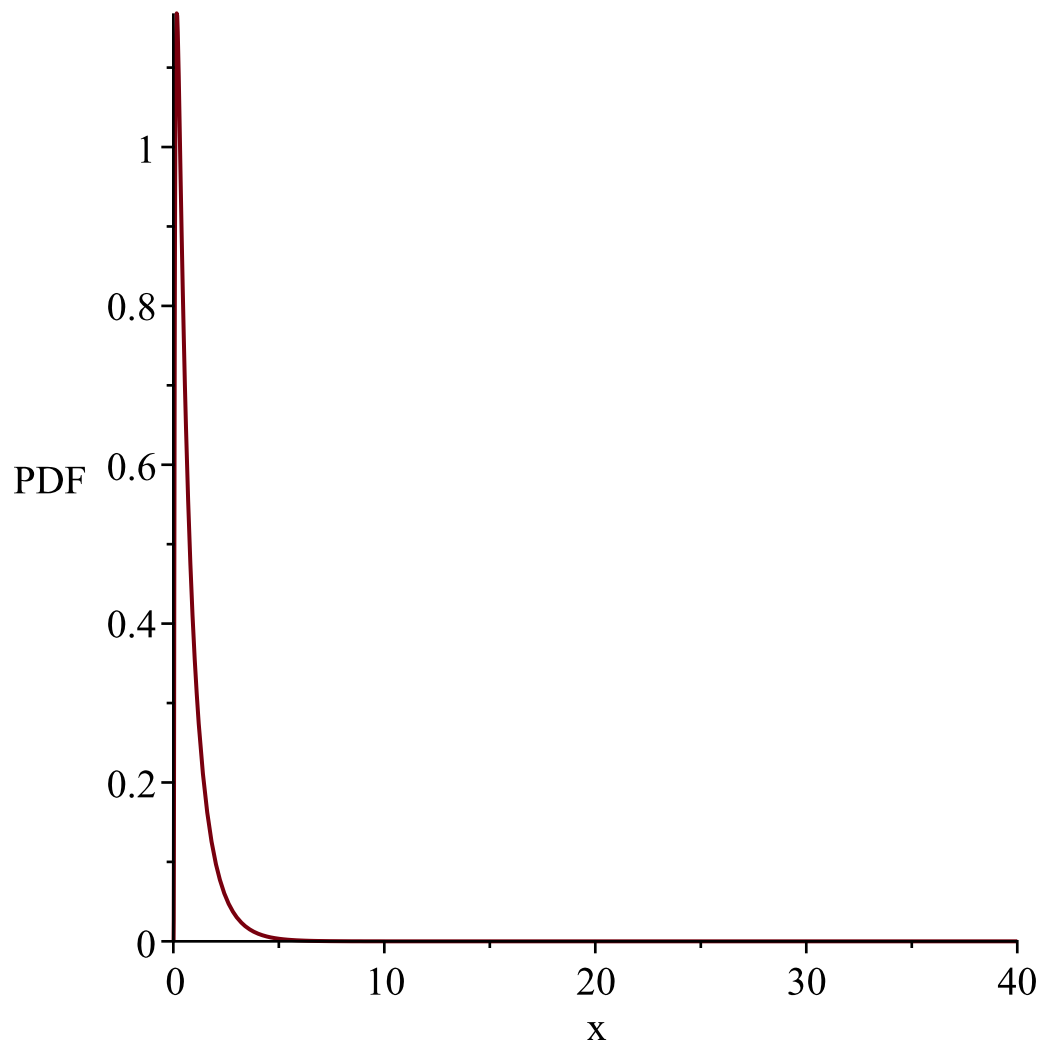
$$\text{"g(x)", }\frac{1}{x}, \text{"base", }\sqrt{\frac{1}{\pi x^3}} \, \mathrm{e}^{\frac{-1}{9}\frac{(x-3)^2}{x}}, \text{"InverseGaussianRV(2,3)"}$$

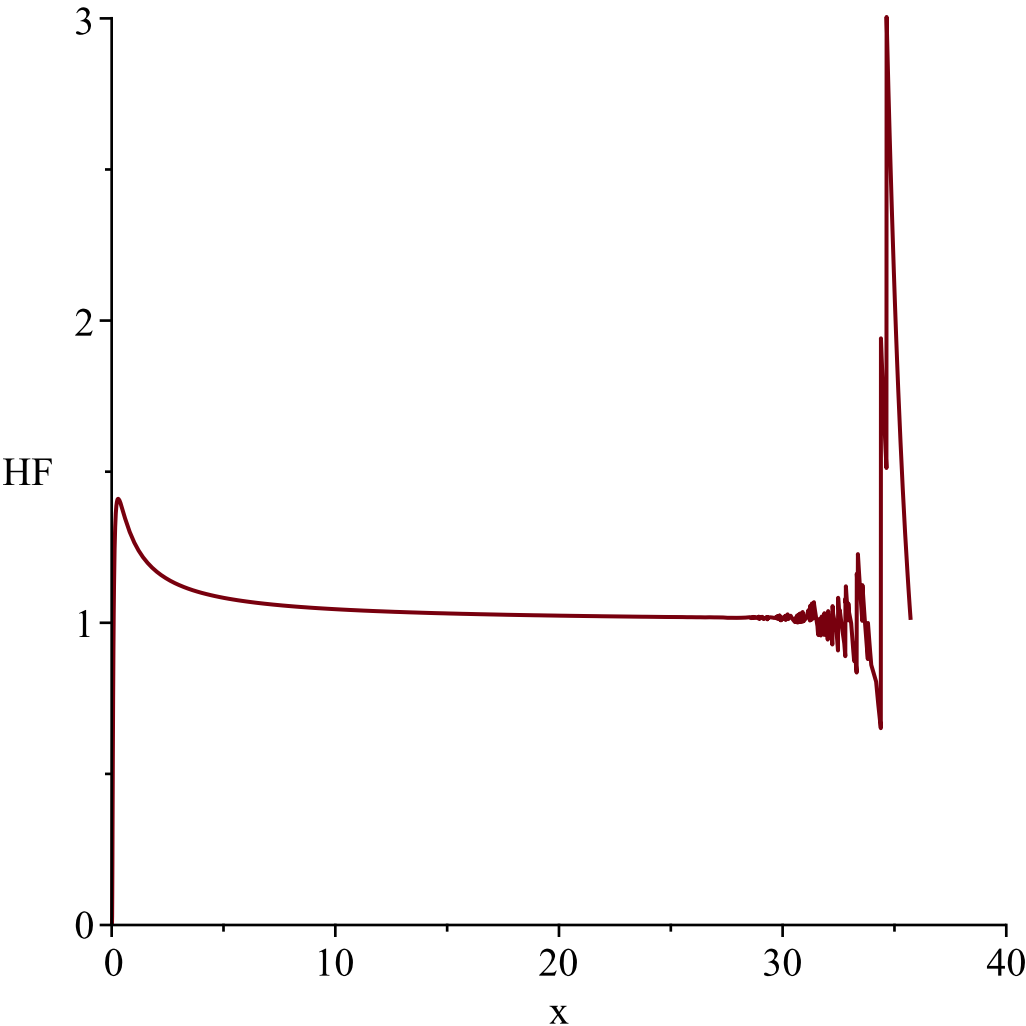
$$\text{"f(x)", } \frac{\text{signum}(x) e^{-\frac{1}{9} \frac{(-1+3x)^2}{x}}}{\sqrt{x} \sqrt{\pi}}$$

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

$$\text{"h(x)", } -\frac{2 \text{signum}(x) e^{-\frac{1}{9} \frac{(-1+3x)^2}{x}}}{\sqrt{x} \sqrt{\pi} \left(e^{\frac{4}{3}} \operatorname{erf}\left(\frac{1}{3} \frac{3x+1}{\sqrt{x}}\right) - e^{\frac{4}{3}} + \operatorname{erf}\left(\frac{1}{3} \frac{-1+3x}{\sqrt{x}}\right) - 1 \right)}$$

$$\text{"mean and variance", } \frac{5}{6}, \frac{2}{3}$$





```
{\frac {{\it signum} \left( x \right) }{\sqrt {x}\sqrt {\pi }}}{
{\rm e}^
{-1/9\,{\frac { \left( -1+3\sqrt {x} \right) ^{2}}{x}}}}
"i is",4,
" -----
-----"
```

```
g := t→arctan(t)
l := 0
u := ∞
```

```
Temp := ⌈⌈
y~→√(1/tan(y~)) e^(-1/9 (tan(y~)-3)^2/tan(y~)) (1+tan(y~)^2)
√π |tan(y~)|
⌋, ⌈0, 1/2 π⌋, ["Continuous",
"PDF"]
⌋

"l and u", 0, ∞
```

$$\text{"g(x)", } \arctan(x), \text{"base", } \sqrt{\frac{1}{\pi x^3}} e^{-\frac{1}{9} \frac{(x-3)^2}{x}}, \text{"InverseGaussianRV(2,3)"}$$

$$\text{"f(x)", } \frac{\sqrt{\frac{1}{\tan(x)}} e^{-\frac{1}{9} \frac{(\tan(x)-3)^2}{\tan(x)}} (1 + \tan(x)^2)}{\sqrt{\pi} |\tan(x)|}$$

$$\text{"S(x)", } \frac{\sqrt{\pi} - \left(\int_0^x \frac{\sqrt{\frac{\cos(t)}{\sin(t)}} e^{\frac{1}{9} \frac{6 \cos(t) \sin(t) - 8 \cos(t)^2 - 1}{\cos(t) \sin(t)}} \left| \frac{\cos(t)}{\sin(t)} \right| dt}{\cos(t)^2} \right)}{\sqrt{\pi}}$$

$$\text{"h(x)", } \frac{e^{-\frac{1}{9} \frac{8 \cos(x)^2 - 6 \cos(x) \sin(x) + 1}{\cos(x) \sin(x)}} \sqrt{\frac{\cos(x)}{\sin(x)}} \left| \frac{\cos(x)}{\sin(x)} \right|}{\cos(x)^2 \left(\sqrt{\pi} - \left(\int_0^x \frac{\sqrt{\frac{\cos(t)}{\sin(t)}} e^{\frac{1}{9} \frac{6 \cos(t) \sin(t) - 8 \cos(t)^2 - 1}{\cos(t) \sin(t)}} \left| \frac{\cos(t)}{\sin(t)} \right| dt \right) \right)}$$

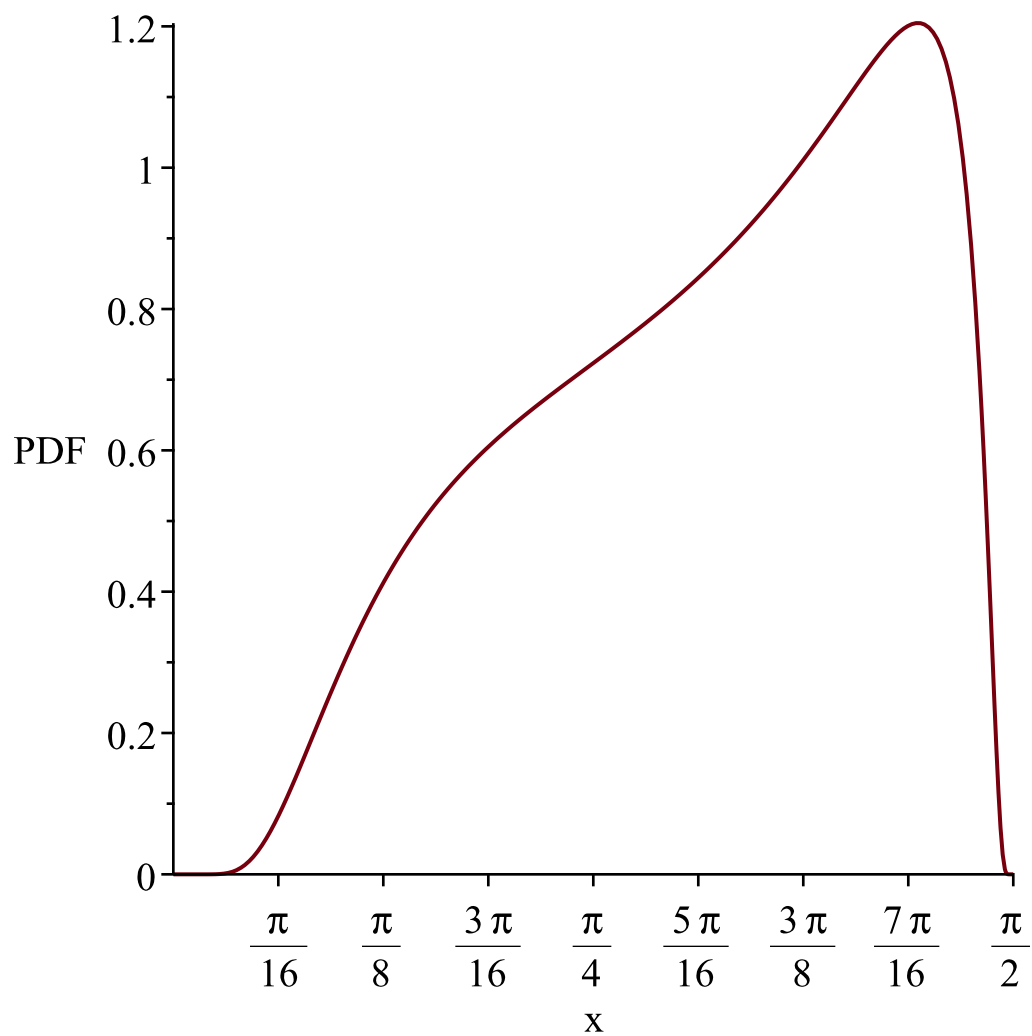
$$\text{"mean and variance", } \frac{\int_0^{\frac{1}{2} \pi} \frac{e^{-\frac{1}{9} \frac{8 \cos(x)^2 - 6 \cos(x) \sin(x) + 1}{\cos(x) \sin(x)}} x}{\sin(x)^{3/2} \sqrt{\cos(x)}} dx}{\sqrt{\pi}},$$

$$- \frac{1}{\pi^{3/2}} \left(\left(\int_0^{\frac{1}{2} \pi} \frac{e^{-\frac{1}{9} \frac{8 \cos(x)^2 - 6 \cos(x) \sin(x) + 1}{\cos(x) \sin(x)}} x}{\sin(x)^{3/2} \sqrt{\cos(x)}} dx \right)^2 \sqrt{\pi} - \left(\int_0^{\frac{1}{2} \pi} \frac{e^{-\frac{1}{9} \frac{8 \cos(x)^2 - 6 \cos(x) \sin(x) + 1}{\cos(x) \sin(x)}} x^2}{\sin(x)^{3/2} \sqrt{\cos(x)}} dx \right) \pi \right)$$

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

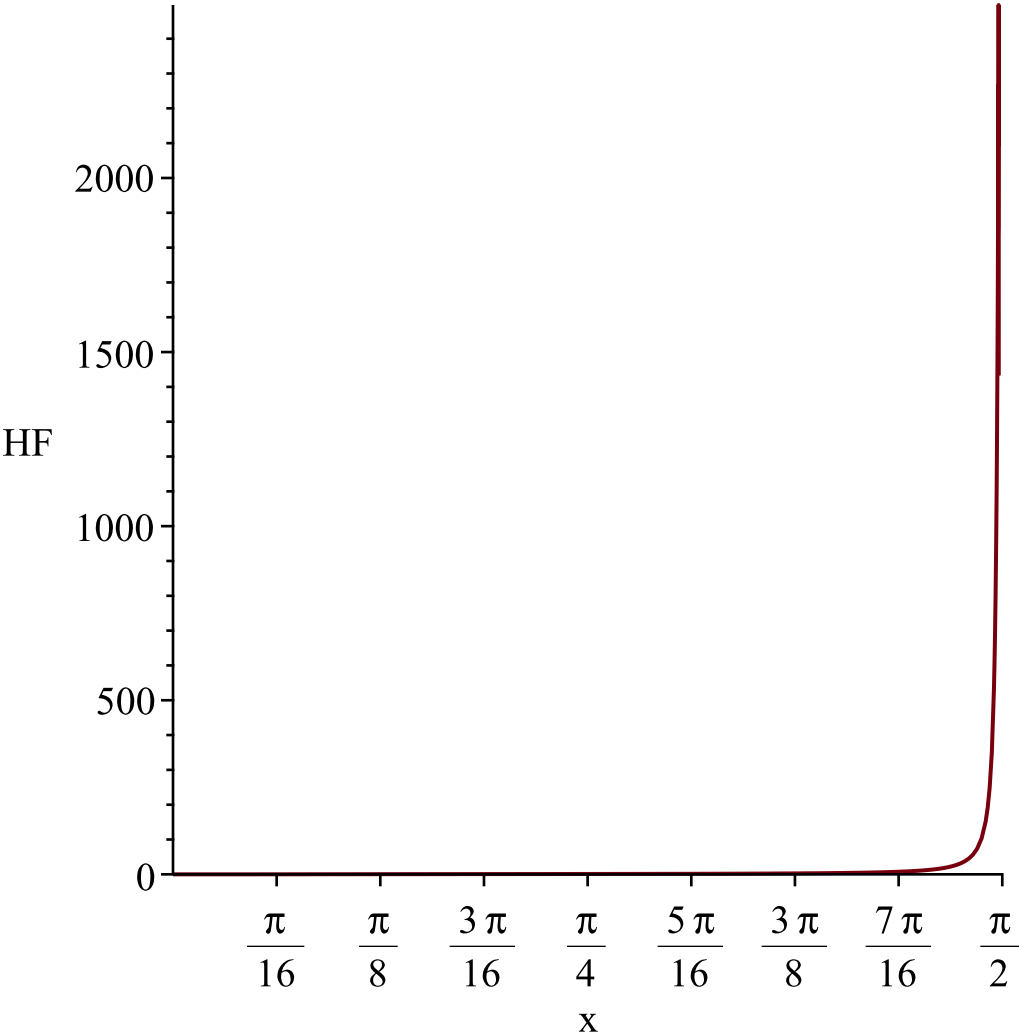
variable, $\frac{1}{2} \pi$

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, $\frac{1}{2} \pi$*

Resetting high to RV's maximum support value



```
{\frac {\sqrt { \left( \tan \left( x \right) \right) ^{-1}}
\left( 1+
\left( \tan \left( x \right) \right) ^{2} \right) }{\left|
\tan
\left( x \right) \right| \sqrt {\pi }}}{\rm e}^{-1/9\sqrt {\frac {
\left( \tan \left( x \right) -3 \right) ^{2}}{\tan \left( x
\right) }
}}}
```

"i is", 5,
"-----"
-----"

$$g:=t\rightarrow e^t$$
$$l:=0$$
$$u:=\infty$$

$$Temp:=\left[\left[y\rightsquigarrow\frac{\sqrt{\frac{1}{\ln(y\sim)^3}}e^{-\frac{1}{9}\frac{(\ln(y\sim)-3)^2}{\ln(y\sim)}}}{\sqrt{\pi}\,y\sim}\right],\left[1,\infty\right],\left["Continuous","PDF"\right]\right]$$

"l and u", 0, ∞

"g(x)", e^x , "base", $\sqrt{\frac{1}{\pi x^3}} e^{-\frac{1}{9} \frac{(x-3)^2}{x}}$, "InverseGaussianRV(2,3)"

"f(x)", $\frac{\sqrt{\frac{1}{\ln(x)^3}} e^{-\frac{1}{9} \frac{(\ln(x)-3)^2}{\ln(x)}}}{\sqrt{\pi} x}$

"S(x)", $\frac{\sqrt{\pi} - \left(\int_1^x \frac{\sqrt{\frac{1}{\ln(t)^3}} e^{-\frac{1}{9} \frac{(\ln(t)-3)^2}{\ln(t)}}}{t} dt \right)}{\sqrt{\pi}}$

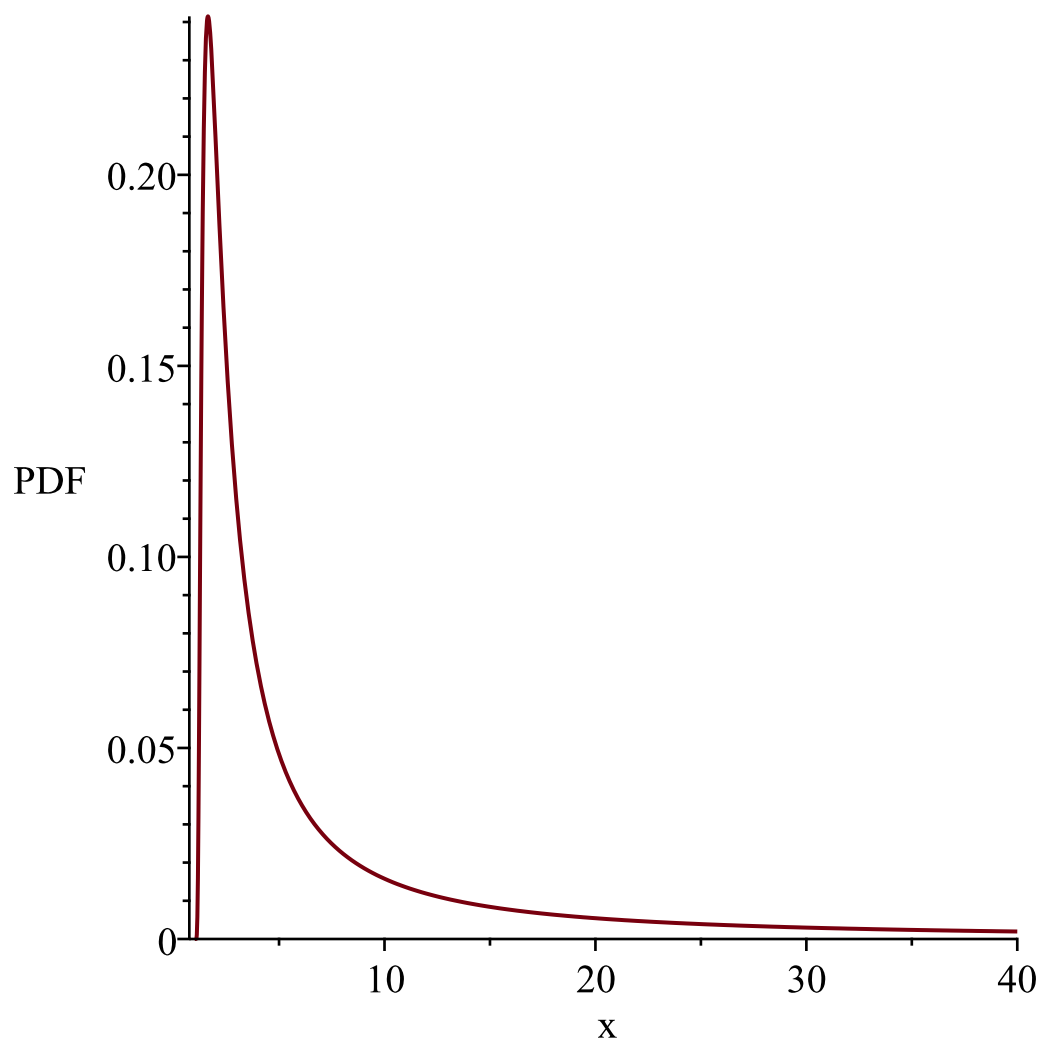
"h(x)", $\frac{\sqrt{\frac{1}{\ln(x)^3}} e^{-\frac{1}{9} \frac{(\ln(x)-3)^2}{\ln(x)}}}{x \left(\sqrt{\pi} - \left(\int_1^x \frac{\sqrt{\frac{1}{\ln(t)^3}} e^{-\frac{1}{9} \frac{(\ln(t)-3)^2}{\ln(t)}}}{t} dt \right) \right)}$

"mean and variance", ∞ , *undefined*

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

Warning, computation interrupted

[>