$$filename := \text{"C:/LatexOutput/ExponentialGen.tex"}$$

$$a\sim e^{-a\sim x}$$

"i is", 1,

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

$$g := t \to t^2$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \to \frac{1}{2}\ \frac{a\sim e^{-a\sim \sqrt{y\sim}}}{\sqrt{y\sim}}\right], [0, \infty], [\text{"Continuous"}, \text{"PDF"}]\right]$$

"l and u", 0, ∞

"g(x)", x^2, "base", $a\sim e^{-a\sim x}$, "ExponentialRV(a)"

"f(x)", $\frac{1}{2}\ \frac{a\sim e^{-a\sim \sqrt{x}}}{\sqrt{x}}$

"i is", 2,

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

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

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \to 2\ a\sim e^{-a\sim y\sim^2}\ y\sim\right], [0, \infty], [\text{"Continuous"}, \text{"PDF"}]\right]$$

"l and u", 0, ∞

"g(x)", $\sqrt{x}$, "base", $a\sim e^{-a\sim x}$, "ExponentialRV(a)"

"f(x)", $2\ a\sim e^{-a\sim x^2}\ x$

"i is", 3,

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

$$g := t \to \frac{1}{t}$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \to \frac{a\sim e^{-\frac{a\sim}{y\sim}}}{y\sim^2}\right], [0, \infty], [\text{"Continuous"}, \text{"PDF"}]\right]$$

"l and u", 0, ∞

"g(x)", $\frac{1}{x}$, "base", $a\sim e^{-a\sim x}$, "ExponentialRV(a)"

$$\text{"f(x)"},\ \frac{a\sim\, e^{-\frac{a\sim}{x}}}{x^2}$$

"i is", 4,

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

$$g := t \to \arctan(t)$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \to \frac{a\sim\, e^{-\frac{a\sim \sin(y\sim)}{\cos(y\sim)}}}{\cos(y\sim)^2}\right], \left[0,\ \frac{1}{2}\ \pi\right], [\text{"Continuous"}, \text{"PDF"}]\right]$$

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

$$\text{"g(x)"}, \arctan(x), \text{"base"}, a\sim\, e^{-a\sim x}, \text{"ExponentialRV(a)"}$$

$$\text{"f(x)"},\ \frac{a\sim\, e^{-\frac{a\sim \sin(x)}{\cos(x)}}}{\cos(x)^2}$$

"i is", 5,

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

$$g := t \to e^t$$

$$l := 0$$

$$u := \infty$$

$$Temp := [[y\sim \to a\sim\, y\sim^{-a\sim - 1}], [1,\ \infty], [\text{"Continuous"}, \text{"PDF"}]]$$

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

$$\text{"g(x)"}, e^x, \text{"base"}, a\sim\, e^{-a\sim x}, \text{"ExponentialRV(a)"}$$

$$\text{"f(x)"},\ a\sim\, x^{-a\sim - 1}$$

"i is", 6,

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

$$g := t \to \ln(t)$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \to a\sim\, e^{-a\sim e^{y\sim} + y\sim}\right], [-\infty,\ \infty], [\text{"Continuous"}, \text{"PDF"}]\right]$$

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

$$\text{"g(x)"}, \ln(x), \text{"base"}, a\sim\, e^{-a\sim x}, \text{"ExponentialRV(a)"}$$

$$\text{"f(x)"},\ a\sim\, e^{-a\sim e^x + x}$$

"i is", 7,

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

$$g := t \to e^{-t}$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \to a\sim\, y\sim^{a\sim - 1}\right], [0, 1], ["Continuous", "PDF"]\right]$$

"l and u", 0, ∞

"g(x)", e^{-x}, "base", $a\sim\, e^{-a\sim x}$, "ExponentialRV(a)"

"f(x)", $a\sim\, x^{a\sim - 1}$

"i is", 8,

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

$$g := t \to -\ln(t)$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \to a\sim\, e^{-a\sim\, e^{-y\sim} - y\sim}\right], [-\infty, \infty], ["Continuous", "PDF"]\right]$$

"l and u", 0, ∞

"g(x)", $-\ln(x)$, "base", $a\sim\, e^{-a\sim x}$, "ExponentialRV(a)"

"f(x)", $a\sim\, e^{-a\sim\, e^{-x} - x}$

"i is", 9,

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

$$g := t \to \ln(t + 1)$$

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \to a\sim\, e^{-a\sim\, e^{y\sim} + a\sim + y\sim}\right], [0, \infty], ["Continuous", "PDF"]\right]$$

"l and u", 0, ∞

"g(x)", $\ln(x + 1)$, "base", $a\sim\, e^{-a\sim x}$, "ExponentialRV(a)"

"f(x)", $a\sim\, e^{-a\sim\, e^{x} + a\sim + x}$

"i is", 10,

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

$$g := t \to \frac{1}{\ln(t + 2)}$$

$$l := 0$$

$$u := \infty$$

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

"l and u", 0, ∞

"g(x)", $\frac{1}{\ln(x+2)}$, "base", $a\sim e^{-a\sim x}$, "ExponentialRV(a)"

"f(x)", $\frac{a\sim e^{-\frac{a\sim x e^{\frac{1}{x}}-2a\sim x-1}{x}}}{x^2}$

"i is", 11,

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

$$g := t \to \tanh(t)$$

$$l := 0$$

$$u := \infty$$

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

"l and u", 0, ∞

"g(x)", $\tanh(x)$, "base", $a\sim e^{-a\sim x}$, "ExponentialRV(a)"

"f(x)", $-\frac{a\sim e^{-a\sim \operatorname{arctanh}(x)}}{x^2-1}$

"i is", 12,

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

$$g := t \to \sinh(t)$$

$$l := 0$$

$$u := \infty$$

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

"l and u", 0, ∞

"g(x)", $\sinh(x)$, "base", $a\sim e^{-a\sim x}$, "ExponentialRV(a)"

"f(x)", $\frac{a\sim e^{-a\sim \operatorname{arcsinh}(x)}}{\sqrt{x^2+1}}$

"i is", 13,

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

$$g := t \to \operatorname{arcsinh}(t)$$

$$l := 0$$

$$u := \infty$$

$$Temp := [[y\sim \to a\sim e^{-a\sim \sinh(y\sim)} \cosh(y\sim)], [0, \infty], ["Continuous", "PDF"]]$$

"l and u", 0, ∞

"g(x)", $\operatorname{arcsinh}(x)$, "base", $a\sim e^{-a\sim x}$, "ExponentialRV(a)"

"f(x)", $a\sim e^{-a\sim \sinh(x)} \cosh(x)$

"i is", 14,

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

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

$$l := 0$$

$$u := \infty$$

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

"l and u", 0, ∞

"g(x)", $\operatorname{csch}(x+1)$, "base", $a\sim \, e^{-a\sim x}$, "ExponentialRV(a)"

"f(x)", $\dfrac{a\sim \, e^{-a\sim \, (-1 + \operatorname{arccsch}(x))}}{\sqrt{x^2+1}\ |x|}$

"i is", 15,

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

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

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim \to \frac{a\sim \, e^{\frac{a\sim \, (\sinh(y\sim) - 1)}{\sinh(y\sim)}} \cosh(y\sim)}{\sinh(y\sim)^2} \right], \left[0, \ln\left(1 + \sqrt{2}\right) \right], ["Continuous", "PDF"] \right]$$

"l and u", 0, ∞

"g(x)", $\operatorname{arccsch}(x+1)$, "base", $a\sim \, e^{-a\sim x}$, "ExponentialRV(a)"

"f(x)", $\dfrac{a\sim \, e^{\frac{a\sim \, (\sinh(x) - 1)}{\sinh(x)}} \cosh(x)}{\sinh(x)^2}$

"i is", 16,

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

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

$$l := 0$$

$$u := \infty$$

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

"l and u", 0, ∞

"g(x)", $\dfrac{1}{\tanh(x+1)}$, "base", $a\sim \, e^{-a\sim x}$, "ExponentialRV(a)"

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

"i is", 17,

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

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

$$l := 0$$

$$u := \infty$$

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

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

$$\text{"g(x)"},\ \frac{1}{\sinh(x+1)},\ \text{"base"},\ a\sim\, e^{-a\sim x},\ \text{"ExponentialRV(a)"}$$

$$\text{"f(x)"},\ \frac{a\sim\, e^{-a\sim\left(-1+\operatorname{arcsinh}\left(\frac{1}{x}\right)\right)}}{\sqrt{x^2+1}\ |x|}$$

"i is", 18,

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

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

$$l := 0$$

$$u := \infty$$

$$Temp := \left[\left[y\sim\to\frac{a\sim\, e^{-a\sim\left(-1+\sinh\left(\frac{1}{y\sim}\right)\right)}\cosh\left(\frac{1}{y\sim}\right)}{y\sim^2}\right],\left[0,\ \frac{1}{\ln\left(1+\sqrt{2}\right)}\right],[\text{"Continuous"},\ \text{"PDF"}]\right]$$

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

$$\text{"g(x)"},\ \frac{1}{\operatorname{arcsinh}(x+1)},\ \text{"base"},\ a\sim\, e^{-a\sim x},\ \text{"ExponentialRV(a)"}$$

$$\text{"f(x)"},\ \frac{a\sim\, e^{-a\sim\left(-1+\sinh\left(\frac{1}{x}\right)\right)}\cosh\left(\frac{1}{x}\right)}{x^2}$$

"i is", 19,

" ----------

----------"

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

$$l := 0$$

$$u := \infty$$

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

"l and u", 0, ∞

"g(x)", $\frac{1}{\operatorname{csch}(x)} + 1$, "base", $a\sim \, e^{-a\sim x}$, "ExponentialRV(a)"

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

"i is", 20,

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

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

$$l := 0$$

$$u := \infty$$

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

"l and u", 0, ∞

"g(x)", $\tanh\left(\frac{1}{x}\right)$, "base", $a\sim \, e^{-a\sim x}$, "ExponentialRV(a)"

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

"i is", 21,

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

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

$$l := 0$$

$$u := \infty$$

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

"l and u", 0, ∞

"g(x)", $\operatorname{csch}\left(\frac{1}{x}\right)$, "base", $a\sim\, e^{-a\sim x}$, "ExponentialRV(a)"

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

"i is", 22,

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

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

$$l := 0$$

$$u := \infty$$

$$Temp := [[y\sim \to a\sim\, e^{-a\sim \sinh(y\sim)}\cosh(y\sim)], [0, \infty], ["Continuous", "PDF"]]$$

"l and u", 0, ∞

"g(x)", $\operatorname{arccsch}\left(\frac{1}{x}\right)$, "base", $a\sim\, e^{-a\sim x}$, "ExponentialRV(a)"

"f(x)", $a\sim\, e^{-a\sim \sinh(x)}\cosh(x)$ **(1)**