Plot PDF and CDF of Log Normal distributions

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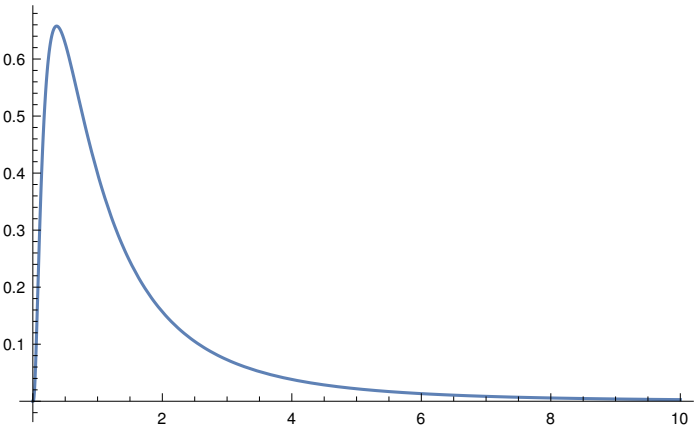
In[ ]:=
$$\text{Plot}\left[\frac{1}{\sqrt{2\,\pi}\;\sigma\,y}\;\text{Exp}\left[-\frac{1}{2}\left(\frac{\text{Log}[y]-\mu}{\sigma}\right)^2\right]\text{ /. }\{\mu\to 0,\ \sigma\to 1\},\ \{y,\ 0,\ 10\},\ \text{PlotRange}\to\text{Full}\right]$$

Out[ ]=

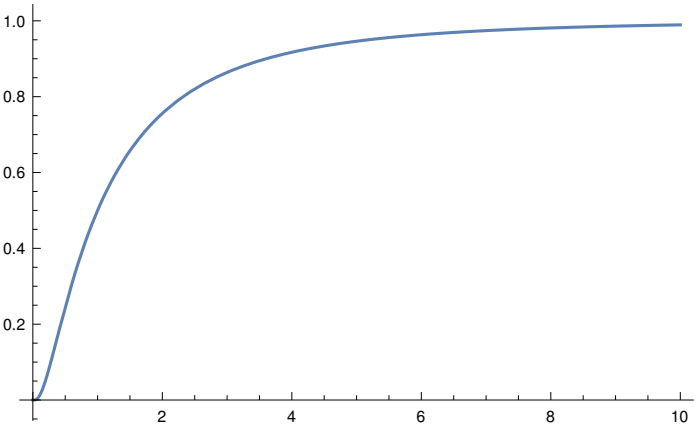


In[ ]:=
$$\text{Integrate}\left[\frac{1}{\sqrt{2\,\pi}\;\sigma\,y}\;\text{Exp}\left[-\frac{1}{2}\left(\frac{\text{Log}[y]-\mu}{\sigma}\right)^2\right]\text{ /. }\{\mu\to 0,\ \sigma\to 1\},\ \{y,\ 0,\ x\}\right]$$

Out[ ]=
$$\frac{1}{2}\times\left(1+\text{Erf}\left[\frac{\text{Log}[x]}{\sqrt{2}}\right]\right)$$

In[ ]:=
$$\text{Plot}\left[\frac{1}{2}\times\left(1+\text{Erf}\left[\frac{\text{Log}[x]}{\sqrt{2}}\right]\right),\ \{x,\ 0,\ 10\},\ \text{PlotRange}\to\text{Full}\right]$$

Out[ ]=



In[ ]:=
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D[ArcTan[x], x]
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Out[ ]=
$$\frac{1}{1+x^2}$$