

Three Curves

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Outline

1 Frame3

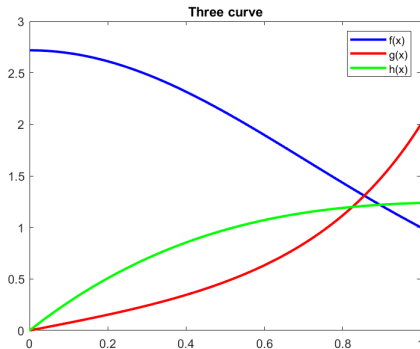
2 Frame4

Three Curves

$$\begin{cases} f(x) &= e^{1-x^2} \\ g(x) &= 2xe^{x^2-1} \\ h(x) &= -x \sin x + 3 \ln(x+1) \end{cases}$$

Three Curves

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Derivative

- First order derivative $f'(x)$ is **negative** on interval $[0, 1]$.
- First order derivatives of $g(x)$ and $h(x)$ are **positive** on interval $[0, 1]$.
 - Second order derivative of $g(x)$ is positive on interval $[0, 1]$.
 - Second order derivative of $h(x)$ is negative on interval $[0, 1]$.

[CLICK HERE](#) for three curves

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\left\{

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\end{array}

\right.

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