

Three Curves

2051XXXX

October 31, 2023

Table of Contents

1 Three Curves

2 Observation

Three Curves

Column 1:

- Item 1
- Item 2
- Item 3

Column 2:

- ① Numbered item 1
- ② Numbered item 2
- ③ Numbered item 3

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

Three Curves

Column 1:

- Item 1
- Item 2
- Item 3

Column 2:

- ① Numbered item 1
- ② Numbered item 2
- ③ Numbered item 3

$$\left\{ \begin{array}{lcl} f(x) & = & e^{1-x^2} \\ g(x) & = & 2xe^{x^2-1} \\ h(x) & = & -x \sin x + 3 \ln(x+1) \end{array} \right. \quad 123123123$$

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 function information.