



TangentLines.vi Readme

This VI graphs a function, $y = f(x)$, and the line tangent to the graph of the function for the x -value selected. The tangent line is determined using $y = m(x - a) + c$ where m is the value of $f'(a)$, a is the x -value selected by the knob, and c is the value of $f(a)$.

Many common functions can be used for $f(x)$. For example, x , x^2 , x^3 , $\text{abs}(x)$, $\text{sqrt}(x)$, $\text{sin}(x)$, $\text{cos}(x)$, 2^x , $1/x$, $\text{exp}(x)$, $\text{ln}(x)$ can be used.

This VI was built using LabVIEW 8.5 on a Mac running OS X. The VI will run in Windows with LabVIEW 8.5 or later installed.

Please direct all comments and questions regarding the contents of this document to:

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Warm regards,

Eric Mann