

TeX code compiled with \documentclass{beamer} using the Amsterdam theme.

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\begin{document} \begin{frame} Find the linearization of each function: \vskip 5pt \begin{itemize} \item[\bf a)] $h(x) = x^4 - 3x^2 - 1$ at $a=-1$. \vskip 20pt \item[\bf b)] $f(x) = \sin^2(x)$ at $a=\frac{\pi}{2}$. \vskip 20pt \item[\bf c)] $g(x) = \frac{1}{(1+3x)^4}$ at $a=0$. \vskip 20pt \item[\bf d)] $r(t) = t^{\frac{3}{4}}$ at $a=16$. \end{itemize} \end{frame} \begin{frame} \large Use a linear approximation to estimate the value of $\sqrt[3]{9}$. \vskip 30pt Use a linear approximation to estimate the value of $\tan(44^\circ)$. \end{frame} \begin{frame} \large The line tangent to the graph of $f(x) = \sin(x)$ at the point $(0,0)$ is $y=x$. This implies that \vskip 10pt \begin{enumerate}[a)] \item $\sin(0.0005) \approx 0.0005$ \vskip 10pt \item The line $y=x$ touches the graph of $f(x) = \sin(x)$ at exactly one point, $(0,0)$. \vskip 10pt \item $y=x$ is the best straight line approximation to the graph of $f$ for all $x$. \end{enumerate} \end{frame} \end{document}
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From:

<http://www2.math.binghamton.edu/> - **Department of Mathematics and Statistics, Binghamton University**

Permanent link:

http://www2.math.binghamton.edu/p/calculus/resources/calculus_flipped_resources/applications/linearization_tex.html 

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