

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

```
\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}
```

From:
<http://www2.math.binghamton.edu/> - **Binghamton University Department of Mathematical Sciences**

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

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