2025/09/14 05:451/1

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

 $4x+4\&\mbox{ if $x> 2$} \end{array}\right.$$ differentiable at 2? \end{frame} \begin{frame} Find all a and $b$$ such that the function $\$\$g(x)=\left\{\frac{x^2+ax+b}{\frac{f} $x>2$}\right\}$ \end{array}\right.\$\$ is differentiable for all \$x\$. \end{frame} \begin{frame} You are designing the first ascent and drop for a roller coaster. You want the slope of the ascent to be \$.8\$ and the slope of the drop to be \$-1.6\$. You will connect these two straight stretches by part of a parabola \$\$y=ax^2+bx+c\$\$ of width \$100\$ units. \begin{enumerate}[a)] \item Certainly you don't want a sharp corner in your tracks at the points where the linear parts meet the parabola. This puts a condition on the tangent lines of the parabola -- what's the condition? \item Find a formula for the parabola. $\end{enumerate} \end{frame} \ \fframe} \ \fframe} \ \fframe\} \ \fframe\} \ \fframe\} \ \frame\} \ \frame$ \ \frame\} \ \frame \ \frame\} \ \frame \frame \frame \frame \frame \frame \frame \t\frame \frame are \$f\$ and \$g\$ necessarily differentiable at \$a\$? \end{frame} \begin{frame} If \$f'(a)\$ exists, $\lambda = x \cdot (x) \cdot (x) \cdot (x)$ determine it exactly. \item[ii)] equals \$f(a)\$. \item[iii)] equals \$f'(a)\$. \item[iv)] may not exist. \end{itemize} \end{frame} \begin{frame} A slow freight train chugs along a straight track. The distance it has traveled after \${\bf x}\$ hours is given by a function f(x)\$. An engineer is walking along the top of the box cars at the rate of \$3\$ miles per hour in the same direction as the train is moving. The speed of the man relative to the ground is $\beta(x) = \frac{1}{3} \left(\frac{1}{3} \right)$ \end{frame} \end{document}

From

https://www2.math.binghamton.edu/ - Department of Mathematics and Statistics, Binghamton University

Permanent link:

https://www2.math.binghamton.edu/p/calculus/resources/calculus_flipped_resources/derivatives/2.2_derivative_function_tex

Last update: 2014/09/01 00:33