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

\begin{document} \begin{frame} Verify that the function satisfies the Mean Value Theorem on the given interval. Then find all numbers c which satisfy the conclusion of the Mean Value Theorem. \vskip 10pt \begin{itemize} \item[\bf a)] $f(x) = 3x^2+2x+5$ on $[-1,1]$. \vskip 10pt \item[\bf b)] $g(x) = x^3+x-1$ on $[0,2]$. \vskip 10pt \item[\bf c)] $h(x) = \dfrac{x}{x+2}$ on $[1,4]$. \vskip 10pt \item[\bf d)] $i(x) = (x-2)^{-2}$ on $[1,4]$. \end{itemize} \end{frame} \begin{frame} On a toll road a driver takes a time stamped toll-card from the starting booth and drives directly to the end of the toll section. After paying the required toll, the driver is surprised to receive a speeding ticket along with the toll receipt. Which of the following describes the situation? \vskip 5pt \begin{itemize} \item[\bf a)] The booth attendant does not have enough information to prove that the driver was speeding. \vskip 5pt \item[\bf b)] The booth attendant can prove that the driver was speeding during their trip. \vskip 5pt \item[\bf c)] The driver will get a ticker for a lower speed than their actual maximum speed. \end{itemize} \end{frame} \begin{frame} {\bf True or False} \vskip 5pt An athlete is running back and forth along a straight path. She finishes her run at the place where she began. There must be at least one moment, other than the end of the race, where she was at a complete stop. \end{frame} \begin{frame} Two runners start a race at the same moment and finish in a tie. What must be true? \vskip 10pt \begin{itemize} \item[\bf a)] At some point during the race the two runners were not tied. \vskip 5pt \item[\bf b)] The runners' speeds at the end of the race must have been exactly the same. \vskip 5pt \item[\bf c)] The runners must have had the same speed at exactly the same time at some point in the race. \vskip 5pt \item[\bf d)] The runners had to have the same speed at some moment, but not necessarily at exactly the same time. \end{itemize} \end{frame} \begin{frame} Show that for all values a and b $$|\sin(a)-\sin(b)| \leq |a-b|$$ \vskip 35pt Suppose that $3\leq f'(x) \leq 5$ for all values of x. Show that $$18 \leq f(8)-f(2) \leq 30$$ \vskip 35pt Show that the polynomial $$f(x)=1+2x+x^3+4x^5$$ has exactly one real root. \end{frame} \end{document}