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

\begin{document} \begin{frame} \large The statement ”Whether or not $\displaystyle\lim_{x\rightarrow a} f(x)$ exists, depends on how $f(a)$ is defined,” is true \begin{itemize} \item[(a)] sometimes, \item[(b)] always, \item[(c)] never. \end{itemize} \end{frame} \begin{frame} \Large Find the following limits. \vskip 15pt \begin{columns} \begin{column}{0.5\textwidth} \begin{enumerate} \item[\bf a)] $\displaystyle\lim_{x\to 7^-}\displaystyle\frac{x+6}{x-7}$ \vskip 30pt \item[\bf b)] $\displaystyle\lim_{x\to 4}\displaystyle\frac{3-x}{(x-4)^2}$ \end{enumerate} \end{column} \begin{column}{0.5\textwidth} \begin{enumerate} \item[\bf c)] $\displaystyle\lim_{x\to 1^+}\displaystyle\frac{8}{x^3-1}$ \vskip 30pt \item[\bf d)] $\displaystyle\lim_{x\to 1^-}\displaystyle\frac{8}{x^3-1}$ \vskip 30pt \end{enumerate} \end{column} \end{columns} \end{frame} \begin{frame} \LARGE If a function f is not defined at $x=a$, \begin{enumerate}[a)] \item $\displaystyle{\lim_{x\rightarrow a} f(x)}$ cannot exist \item $\displaystyle{\lim_{x\rightarrow a} f(x)}$ could be 0 \item $\displaystyle{\lim_{x\rightarrow a} f(x)}$ must approach ∞ \item none of the above. \end{enumerate} \end{frame} \begin{frame} \Large Draw the graph of a function $f(x)$ such that $\displaystyle\lim_{x\to 4} f(x)=5$ and $f(4)=5$, or explain why this is impossible. \vskip 30pt Draw the graph of a function $g(x)$ such that $\displaystyle\lim_{x\to 4} g(x)=5$ and $g(4)=4$, or explain why this is impossible. \vskip 30pt Draw the graph of a function $h(x)$ such that $\displaystyle\lim_{x\to 4} h(x)=5$ and $h(4)$ is undefined, or explain why this is impossible. \end{frame} \begin{frame} \Large Draw the graph of a function $f(x)$ such that $\displaystyle\lim_{x\to 6^-} f(x)=5$ and $\displaystyle\lim_{x\to 6^+} f(x)=7$, or explain why this is impossible. \vskip 30pt Draw the graph of a function $g(x)$ such that $\displaystyle\lim_{x\to 6^-} g(x)=5$ and $\displaystyle\lim_{x\to 6^+} g(x)=7$ and $g(6)=10$, or explain why this is impossible. \vskip 30pt Draw the graph of a function $h(x)$ such that $\displaystyle\lim_{x\to 6^-} g(x)=5$ and $\displaystyle\lim_{x\to 6^+} g(x)=5$ and $\dlim_{x\to 6} g(x)$ is undefined, or explain why this is impossible. \end{frame} \begin{frame} If all that you know about a function $g(x)$ is that $g(5)=-3$ and $g'(5)=4$, what is your best estimate of $g(7)$? \end{frame} \end{document}