



# The BEAMER *class*

User Guide for version 3.55.

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\begin{frame}
\frametitle{There Is No Largest Prime Number}
\framesubtitle{The proof uses \textit{reductio ad absurdum}.}
\begin{theorem}
  There is no largest prime number.
\end{theorem}
\begin{proof}
  \begin{enumerate}
    \item<1-| alert@1> Suppose  $p$  were the largest prime number.
    \item<2-> Let  $q$  be the product of the first  $p$  numbers.
    \item<3-> Then  $q+1$  is not divisible by any of them.
    \item<1-> But  $q + 1$  is greater than  $1$ , thus divisible by some prime
      number not in the first  $p$  numbers.\qedhere
  \end{enumerate}
\end{proof}
\end{frame}
```

**There Is No Largest Prime Number**  
The proof uses *reductio ad absurdum*.

**Theorem**  
There is no largest prime number.

**Proof.**

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- 3 Then  $q + 1$  is not divisible by any of them.
- 4 Thus  $q + 1$  is also prime and greater than  $p$ . □

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