Goal Combine LaTeX and R.

Needs Submit the following files

- `last-first-graph.R` - the script to generate a graph
- `last-first-graph.pdf` - the graph
- `last-first-graph-limit.tex` - the LaTeX document
- `last-first-graph-limit.pdf` - the pdf generated by the LaTeX document

insert *your* last and first names in the relevant positions in the filenames. These will be submitted to GitHub (`https://classroom.github.com/a/hY1ErHLQ`) by Thursday, Nov. 2 (negotiable).

Content You will generate a graph in R and embed it in a LaTeX document that provides some useful context. For example, you might want to explore `\begin{cases}...\end{cases}` as a way to define the piecewise function in the context of the document.

1. Build a graph of a piecewise function in R, with at least two pieces and open and closed circles to indicate where the function is defined at any point(s) of discontinuity. Save the graph as a pdf. So you have control over the plotting window, it might be useful so start with

   ```
   plot(NULL, xlim = c(#, #), ylim = c(#, #), ...)
   ```

   the references to `#` and `...` allow you to choose the limits accordingly and add any plot options. To add your curves use

   ```
   plot(function(x)..., xlim = c(#, #), ..., add=T)
   ```

   where again the `#` offer placeholders for entering endpoints of the interval where that piece of the function is defined and the `...` gives a place to enter the function formula (first) or any additional plotting comments (second).
2. Embed this graph in a LaTeX document with a simple title page. *Using your graph* state three relevant calculus limit problems and give their solutions.

There is a good chance that the content fits on a single page. Ask any questions you have about this in class, in office hours, or by email.