Bibliography Assignment 3

Setup:

- (Optional) Back up the work that you've done so far by going to `menu` and download `source`. Both Overleaf and I do have backup of your work, so you can ask me to restore your work if you ever lose anything.
- Using the "folder" icon, create a new folder called `latex3` in the project `math2794w portfolio of Your Name`.
- Download one of these template to your computer then upload it to your folder.
  a. A template with only a few examples: egunawan.github.io/writing/hw/03/intro3short.tex
  b. A longer template with many examples: egunawan.github.io/writing/hw/03/intro3long.tex

  Change the file name (of the template you want to edit) to `intro3.tex` and set it as your main file.
- Both `.tex` templates are are designed to work with the `.bib` file egunawan.github.io/writing/hw/03/bib3.bib, so you can upload it to your folder and use it as a `.bib` file template.
- Change the author's name to your name and the date to the due date.
- Your assignment is described at the end (Sec. 2) of this handout.

You will follow a demo on BibTeX, MathSciNet, etc at the start of class.
Please follow the written instructions below (or follow the class demonstration).

1 Creating BibTeX entries

1.1 Manually typing a BibTeX entry

a. We will create a BibTeX entry for a Calculus book by Stewart. Search for "Stewart Single Variable Calculus Early Transcendentals 8th ed" in a search engine. Try some of the links that show up, for example, the link of the publisher, CENGAGE LEARNING. Note the title, the edition (8th), the author (Stewart, James), and the published year (2016).

b. With the `bib3.bib` template file as a guide, create an book entry for Stewart. The key of the entry could be `Ste16`, `Stewart`, `Calculus` or another name you prefer. For consistency, you should pick a convention and stick to it. For example, my convention is to write the first three letters of the author's first surname (if the reference is a single-author publication) or the last-name initials of the authors (if there are two or more authors) followed the last two digits of the year of publication.

c. To check that you've added the new bib item correctly, please go to your `intro3.tex` file and type a sentence citing this reference (assuming you picked the key `Ste16` for your BibTeX entry):

`It is well-known that` e^x `is its own derivative, for example, see \cite{Ste16}.`

Recompile. Do you see Stewart's book at the bottom of the PDF, under "References"? Did an error or warning appear?

d. Replacing `\cite{Ste16}` with

`\cite[Section 11.10, Exercise 84]{Ste16}`

would produce "[Ste16, Section 11.10, Exercise 84]" in your PDF file.

1.2 Using MathSciNet to generate a BibTeX entry

a. Go to UConn Library Math and Stat Subject Guide: https://guides.lib.uconn.edu/math.

b. Find the list of "Key Databases" and click on MathSciNet, which you have access to with your UConn NetID.

c. As an example, we will use mathSciNet to generate an entry for a Calculus book written by Spivak.

- On the author's field, type "Spivak" or "Spivak, M." and on the title's field, type "Calculus on manifolds".
- After you've found the correct publication, click on it to see a short review of this publication.

- On the drop-down menu, select "BibTeX." This should take you to a page containing a BibTeX entry of the book in question: https://mathscinet-ams-org.ezproxy.lib.uconn.edu/mathscinet/search/publications.html?fmt=bibtex&pg1=MR&s1=209411.
- Copy this entry and paste it to your `.bib` file. Replace the key of the entry from `MR0209411` to another name that you can easily remember, following your convention. If you follow my convention you would use `Spi65` as the key.

d. Check for errors by citing this reference in `intro3.tex`, for example (assuming you picked the key `Spi65`),

```
To read more about bump functions, see \cite{Spi65}.
```

Recompile. Does Spivak's book show up at the bottom of the PDF, under "References"? Did an error or warning appear?

1.3 Using Google Scholar and other search engines to generate a BibTeX entry

a. Go to scholar.google.com. Search for an article, for example "Cluster algebra I: Foundations by Fomin and Zelevinsky"

b. You would be able to see how many times an article has been cited in other publications.

c. Click on the symbol which looks like a quotation mark. Click on the link to "BibTeX".

d. Copy this entry, and paste it into your .bib file.

e. Change the key from `fomin2002cluster` to something that is easier for you to remember, for example, `FZ02`.

f. To check that you've created the new bib item correctly, go to your `intro3.tex` file and type a sentence citing this reference (assuming you picked the key `FZ02` for your BibTeX entry):

```
Cluster algebras were introduced at the beginning of this century in the seminal paper \cite{FZ02}.
```

Recompile. Does the paper by Fomin and Zelevinsky show up at the bottom of the document, under "References"? Did an error or warning appear?

1.4 Creating a BibTeX entry for a website

a. For example, go to the Wikipedia entry for the Pingala–Khayyam–Yang Hui–Pascal's Triangle.

b. Click the link "Cite this page" under tools. Scroll down to "BibTeX entry". Copy the second option which uses "howpublished" and paste this bib item in your `.bib` file.

c. Use this same format when you cite other websites. For more BibTeX information, read creating-and-managing-bibliographies-with-bibtex-on-overleaf.

2 Assignment: Typesetting and creating bibliography

a. Pick one (or two) topics from "Some possible topics" in egunawan.github.io/writing/resources.

b. Write a paper (between 2 to 4 pages total) about your chosen topics. Include only contents. You do *not* need to include an introduction or abstract.

c. You can view a past semester's student paper egunawan.github.io/writing/sample_papers/studentsample4pg.pdf but do not write about the same topic of this sample student paper!

d. Include at least five instances where you use the command \begin{align*} and \end{align*} or \begin{equation} and \end{equation}. You must use `\label` and `\ref` whenever you reference a numbered environment.

e. Include at least four citations from "suggested references". Try to not type a BibTeX entry manually. For books or published articles, use MathSciNet to generate a BibTeX entry. For yet-to-be-published article, use Google Scholar to do the same.

f. In order for the references to show up, include them in the body of .tex document using the `\cite` command.