

# Problem Set 1\*

Your Name<sup>†</sup>

## Instruction

- To compile a  $\text{\LaTeX}$ file, you can use either the `pdflatex` command on your local machine or online tools like [Overleaf](#). If you're new to  $\text{\LaTeX}$  make some effort to learn how to use it properly especially regarding math environments like [align](#).
- Create a new blank file (e.g., `hw1.tex`). Copy `hw-template.tex` into it. Don't change on this file directly, as you might want to reuse it.
- Delete this instruction part.
- Change the author info: name, email, netid.
- Change the homework info: name, due date, and students you worked with for this homework.
- For the coding part, you need to write your own code.
- When you finish your homework, download the pdf, and rename it before submitting to Canvas: `firstname-lastname-sol1.pdf`.
- The supplemented `header.tex` includes some useful packages and commands that make it easy to write things like  $\mathbf{E}_{x \sim p}[-\log p(x)]$ . Feel free to modify and define your own commands.

## Problem 1

## Problem 2

## Problem 3

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\*Due: September 23, 2021, Student(s) worked with: Collaborators

<sup>†</sup>NetID: Your NetID, Email: Your Email