

# ”Design Doc”

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## 1 Introduction

The purpose of this documentation is to credit those who I have acquired knowledge from. I will still be very briefly going over some aspects as part of a normal design document

## 2 Description of my program

This program takes multiple .c files which ultimately are one of the these:

1. mathlib-test.c
2. bbp.c
3. madhava.c
4. newton.c
5. viete.c
6. euler.c
7. e.c

These all will return values based on the number of iterations it took to obtain either the values  $\pi$ ,  $e$ , or the square root of a double using Newton Raphson’s method.

## 3 Credit

1. Discord is a surprisingly nice environment compared to what ratemyprofessor states. I have found many gems on there but one of the many people I will be crediting will Ben Grant and his amazing article on Compilation. Although Makefiles are seemingly complicated Ben makes them make sense through a build up of understanding that he develops as he goes along and guides us. My Makefile was heavily inspired by him.

2. Next I would like to credit Darrel Long. Darrel of course is one of the biggest sources of inspiration among students in CSE13s. From him I obtained psuedo-code for functions like `sqrt_newton()`, his parsing function which allowed me to obtain flags and create my `Mathlib-test.c` file and also his "psuedo-code" which is essentially explanations on mathematical proofs which have really carried me along in most assignments so far.
3. Here are some people who have definitely made an impact on this assignment for me, but just didn't have a big part such as using psuedo-code or writing an article
  - (a) Lev Teytelman: Lev never fails to help with little problems and even seemingly random ones that are extremely unique edge cases. An example of Lev's help in something like this would be little bits like teaching about `valgrind` and helping me find memory leaks aswell as one of edge cases in which my make file didn't use "Makefile" but only recognized a lower case version i.e. "makefile".
  - (b) Dev Purandare: Dev is really active and responsive on discord. If it weren't for him many bugs would take much longer to be resolved and the fact that he seems to always be online feels as if I have a TA live with me on discord all the time. Dev also supported me in sending articles such as the one Ben made. If it weren't for Dev, I wouldn't have found the article to help with the make file.