

**MAT 128B: Project I: Using iteration methods to understand fractal geometry**

**Wednesday, Feb. 19th**

**To get full credit show all your work and explain in your words the results you obtain**

**Names:** Cole Warner, Michael-River Rose, Nishad Mulay

**[100 pts]**

Our team is organized in the following way: Cole and Michael-River focused on the questions about generating Julia sets and Mandelbrot sets as well as determining the fractal dimension, roughly parts one through four, and eight; Nishad focused on the questions concerning the orbit of a Julia set, coloring said orbits, and Newton's method - roughly parts five through seven. In terms of writing up this project, Michael-River published the code for parts one and eight and did much of the writing and document proofreading and organizing; Cole published code for parts two through four; Nishad published code for parts five through seven.

Additionally, we made use of Github to track our progress, maintain a code base, and keep our work and resources straight. On the following page is a screen capture of our collaboration on Git.

MATH128B / projectOne

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First project on fractals
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71 commits
1 branch
0 packages
0 releases
3 contributors

Branch: master
New pull request
Create new file
Upload files
Find file
Clone or download

mrr24 Delete PartThree.pdf		Latest commit 6e8c67c 1 minute ago
references	Delete pdfs	16 hours ago
README.md	Update README.md	16 hours ago
part1.pdf	Add files via upload	6 minutes ago
part2a.pdf	Add files via upload	6 minutes ago
part2b.pdf	Add files via upload	6 minutes ago
part3.pdf	Add files via upload	6 minutes ago
part4.pdf	Add files via upload	5 minutes ago
part5.pdf	Add files via upload	6 minutes ago
part6.pdf	Add files via upload	6 minutes ago
part7.pdf	Add files via upload	6 minutes ago
part8.pdf	Add files via upload	6 minutes ago
project1-photos-as-pdf.pdf	Add files via upload	16 hours ago

README.md

# Project One

## Fractals

By Cole, Michael-River, and Nishad

All code is separated filewise by question.

*References* holds all our sources and reading for the code and definitions for answers.

Additional References:

- 1.) Dynamical Systems with Applications using MATLAB 2nd Edition by Stephen Lynch [Chapters 3 & 4]
- 2.) Efficient Computation of Julia Sets and Their Fractal Dimension. Dietmar Saupe