

# Explaining my Fibonacci Number Generators

Edwin Trejo

June 2022

## 1 Introduction

This document aims to explain, in detail, the two basic fibonacci number generators I have written in python. I am writing this for 1) posterity and 2) I have no other way of applying the Feynman technique at the moment. This document also assumes knowledge on what the fibonacci sequence is and how it is generated. I hope you enjoy!

## 2 The Recursive Method

The first generator I made generated the fibonacci numbers recursively as many times as the user wanted. It begins with a basic set up of the first two terms of the fibonacci sequence:

```
x=1
y=1
seq=[x,y]
```

The setup is followed by the `nextterm()` function which generates the next term, and appends it.

```
def next_term():
    z=seq[-2]+seq[-1]
    seq.append(z)
```