

Intro-To-CS

Rec-2: Python's Basics 2

Collatz Conjecture

- A very famous (and surprisingly simple) mathematical open question.

- **Collatz sequence:**

1. Start with a positive integer n
2. While $n \neq 1$
 - 2.1 if n is even $n \leftarrow n/2$
 - 2.2 else $n \leftarrow 3n + 1$
3. Halt ($n = 1$)

- Try it yourself! $7 \rightarrow 22 \rightarrow 11 \rightarrow \dots$

- Curious? see more: [here](#) or [here](#)

The conjecture?

Every n reaches 1

