

Sorting Competition

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Group 3 - Aidan & Ben

Sorting Algorithms Used

- Bucket Sort
 - 100 buckets (considered)
- Insertion Sort (implemented within bucketsort)

Sorting Algorithms Attempted

- FlashSort
- SpreadSort

Sieve Of Atkin

- Sieve of Atkin is a mathematical algorithm made by A. O. L. Atkin and Daniel J. Bernstein
- Make a pregenerated list of primes and reference it
- Allows for constant sorting by primes

Ambitions

- Sort in linear time
- What our code would be great doing

Our Folly

- Cons
 - Not really $O(n)$ but $O(n + k)$
- What our code was meant to be doing

Error 1

- Logic error in finding prime multiples
- Cube root vs. square root
 - Intended as a shortcut

Error 2

- Mathematical error in placing items into buckets for prime sort

Credit Where Due

- Marshall Hoffmann and Xaiteev Yang