

Goal

- Finish *upsolving* yesterday's contest.
- Today we will take a look at the following:
 - Prefix Sums
 - Two Pointers

Resources

Prefix Sums

- <https://darrenyao.com/usacobook/cpp.pdf#page=59>
 - Read about 1D prefix sums.
 - 2D prefix sums use the same concept. (optional read)

Two Pointers

- <https://usaco.guide/CPH.pdf#page=87>
 - Read through the explanation see how they solve the following:
 1. Find a subarray with a required sum.
 2. Find two values in a sorted array that have a required sum.

Problems

Prefix Sums

1. <https://cses.fi/problemset/task/1646>
2. <https://cses.fi/problemset/task/1662/>
 - Hint: Find prefix sums with same value modulo n .

Two Pointers

1. <https://cses.fi/problemset/task/1640>
 - Hint: Sort the array but store the original index of each value.
2. <https://cses.fi/problemset/task/1660>
 - Solve using a prefix sum and two pointers.