## Advent of Code - Day08

 $\label{eq:hilmir_vilberg_Arnarsson}$  December 8, 2023

## Part 1

Part 1 is mostly trivial, we can simply just bruteforce it.

## Part 2

Part 2 is more interesting. The cycles for each of the nodes that end with A are constant, i.e., once we get to something that ends with Z in c instructions, iterating through the nodes again with c instructions puts us in the same place. We therefore calculate the cycles for each of the nodes that end with A and then find the LCM of those nodes, or the least common multiple. We use a Sieve of Eratosthenes to find the primes that we use in the LCM alg.