

December 13, 2016

Go back to the beginning before any knowledge. Fully understand everything from the beginning, numbers, primes, factorization.

## 1 primes

Numbers are just functions  $n: \mathbb{N} \rightarrow \mathbb{Z}$ . Multiplication is given by

$$(n \star m)(i) := n(i) + m(i).$$

The greatest common divisor is

$$\gcd(m, n)(i) := \min \{m(i), n(i)\}.$$

The really interesting operation is addition.

$$(n \dagger m)(i) := ???$$