

## Number Factorizations

## **Definition**

Given a number  $n \in \mathbf{N}$ , a factorization  $\pi = (\pi_1, \dots, \pi_p)$  of n is a list of numbers (in  $\mathbf{N}$ ) satisfying

$$n = \pi_1 \pi_2 \cdots \pi_p$$

We say that the factorization  $\pi$  factors n and we call  $\pi_i$  a factor, and refer to  $\{\pi_i\}$  as the factors.

