



## NUMBER BASE NOTATION

### Why

In our definition of natural number notation, the notation  $(\eta_1, \eta_2, \eta_3)$ , which we agreed to denote  $\eta_3\eta_2\eta_1$  has the corresponding number

$$\eta_1 + \eta_2 \cdot 10 + \eta_3 \cdot (10^2)$$

In general for the notation  $\eta_k \cdots \eta_1$ , we had the number

$$\sum_{i=1}^k \eta_i \cdot (10)^{i-1}$$

What if we replace ten in the above expression?



