

$$\mathbb{R} \xrightarrow[\text{bij}]{\mathbf{e}} \mathbb{R}_{>}$$

$$x \geq 0 \Rightarrow {}^x \mathbf{e} \geq 1 + x$$

$$1 \leq b < +\infty \Rightarrow {}^0 \mathbf{e} = 1 \leq b = 1 + \underbrace{b-1}_{\geq 0} \leq {}^{b-1} \mathbf{e} \xrightarrow{\text{ZWS}} \bigvee_{0 \leq a \leq b-1} b = {}^a \mathbf{e}$$