

R arch ordered field

$$\begin{cases} 1 \leq x & \Rightarrow x^n \text{ isoton} \\ 0 \leq x \leq 1 & \Rightarrow x^n \text{ antiton} \\ x < 0 & \Rightarrow x^n \text{ nicht monoton} \end{cases}$$

$$0 \leq x \leq 1 \Rightarrow x^{n+1} = \underbrace{x^n}_{\geq 0} \cdot x \underset{\text{Vor}}{\leq} x^n \cdot 1 = x^n$$

$$1 \leq x \Rightarrow x^{n+1} = \underbrace{x^n}_{\geq 0} \cdot x \underset{\text{Vor}}{\geq} x^n \cdot 1 = x^n$$