Proposition 0.0.1.

$$\lim_{x \to 0} \frac{1}{x} = x \quad \text{for } \max\{x, 0\}$$

$$\sin \frac{1}{x} \, \mathbb{R}(x) \, \mathbb{R}(x) \, \mathbb{R}(x) \, \mathbb{R}(x)$$

$$\sin \frac{1}{x} \, \mathbb{C}(x) \quad \text{since } \mathbb{R}^{\mathbb{C}}(x)$$