

q-geometric-series^{11,40}

$\forall a:\mathbb{Q}, n:\mathbb{N}. \sum_{0 \leq i < n} a \uparrow i = \text{if } \text{qeq}(a;1) \text{ then } n \text{ else } (1 - a \uparrow n / 1 - a) \text{ fi} \in \mathbb{Q}$