Limity: 1) $a \in \mathbb{R}$, $a > 0$, $k \in \mathbb{N}$

$$\lim_{n \to \infty} \frac{n^k}{a^n}$$

$a > 1$, $a = 1 + b$, $b > 0$

$(1+b)^n > \binom{n}{k} b^k$

$k \in \mathbb{N}$, $k \leq n$

2) $\lim_{n \to \infty} \sqrt[n]{n} = ?$

$\sqrt[n]{n} = l + b$

$n = (l+b)^n$

$\sqrt[n]{n} = 1 + b$

$n = (1+b)^n$