

RICEVIMENTO STUDENTI 16/10/2024

$$A^{a_n} \rightarrow A^l \quad \forall \epsilon \in \mathbb{Q}_{n \rightarrow l}$$

$$a_n \rightarrow 0 \Leftrightarrow A^{a_n} \Rightarrow A^0 = 1$$

$$a_n \rightarrow l \Rightarrow \frac{A^{a_n}}{A^l} \rightarrow 1 \quad ?$$

$$a_n \rightarrow l \Rightarrow A^{\overbrace{a_n}^{\epsilon_n} - l} \rightarrow 1$$

$$c_n = (a_n - l)$$

$$c_n \rightarrow 0 \quad A^{c_n} \rightarrow 1$$

n ↑

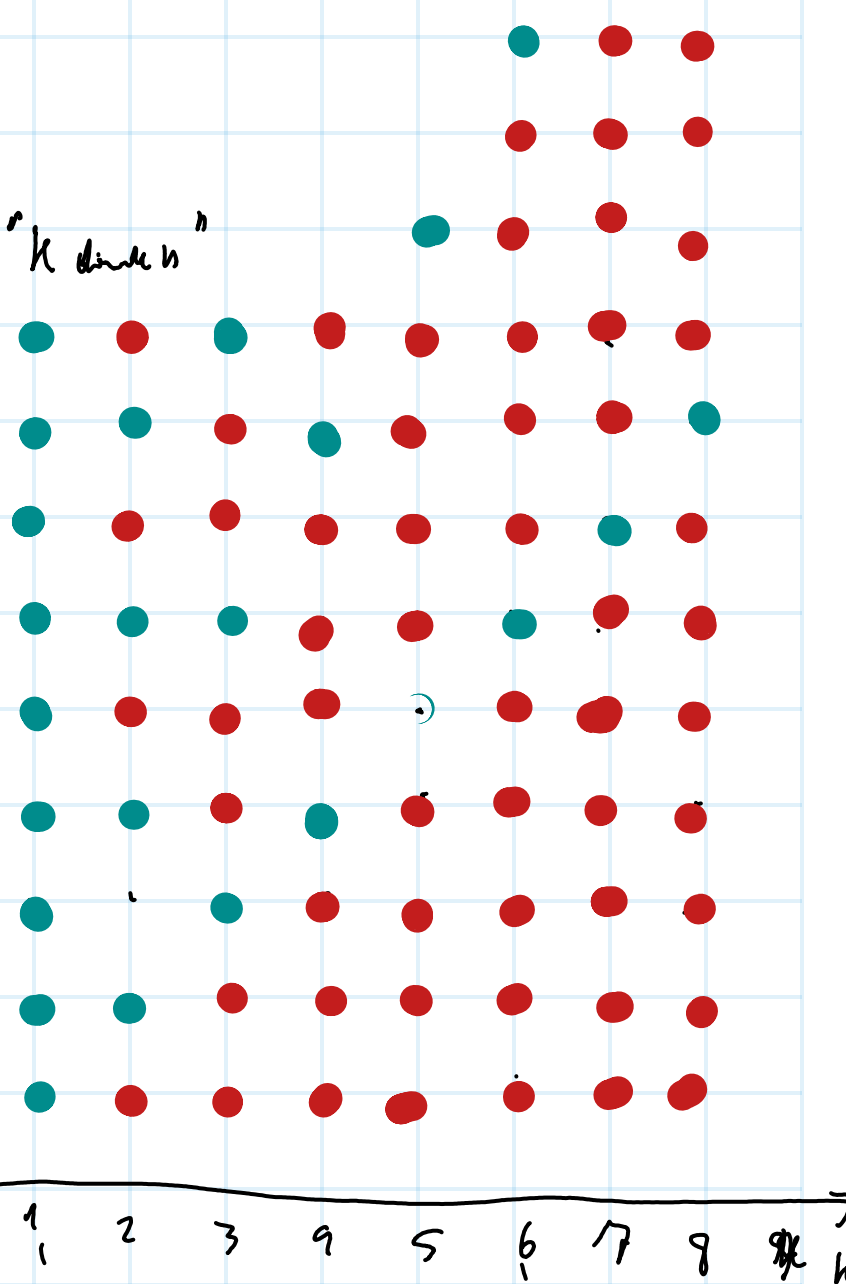
"k divide n"

n

1

1 2 3 4 5 6 7 8 9 k h

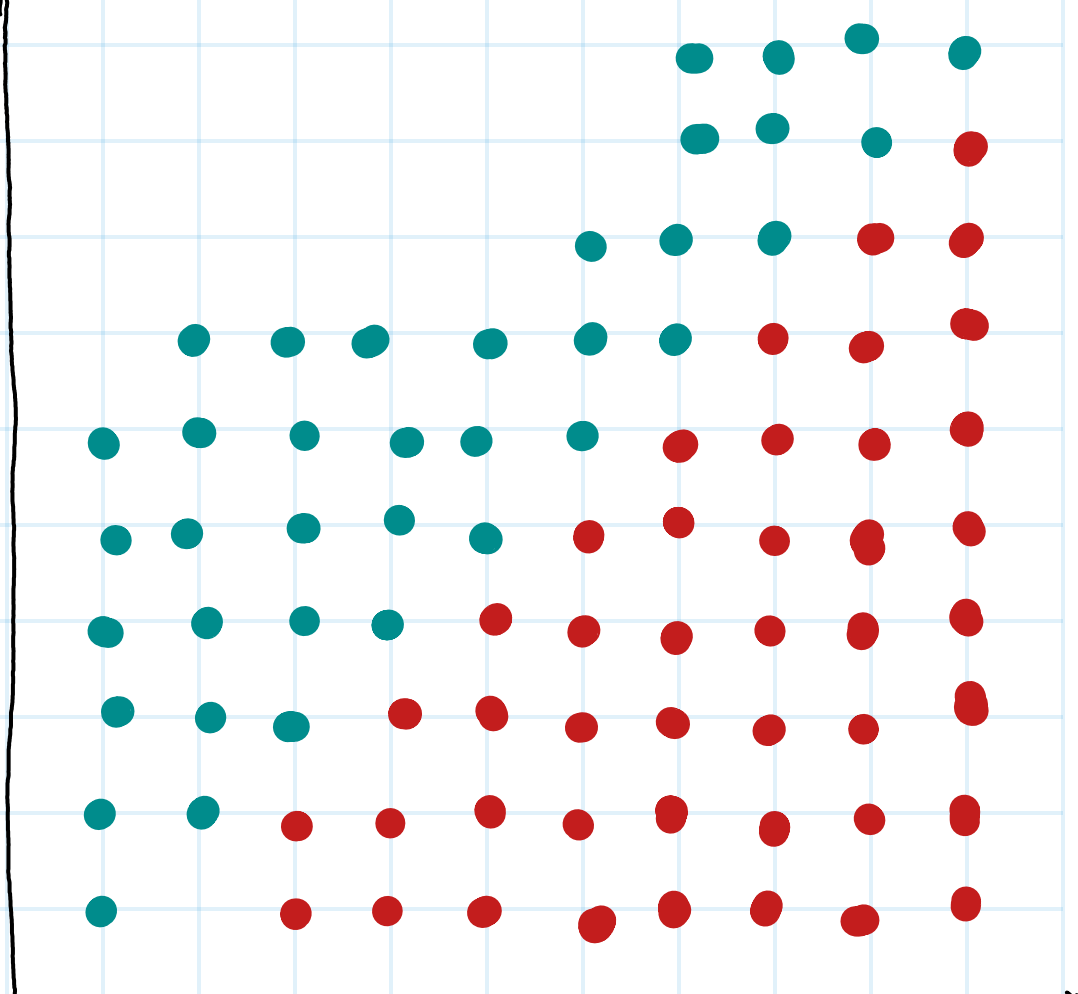
$\forall k \in \mathbb{N}, \text{ FREQ. } m \mid n$
 $k \text{ divide } n$



$\text{DEF IN } n, \text{ DEF IN } k \quad n > k$

$\text{DEF IN } k, \text{ DEF IN } n \quad n < k$

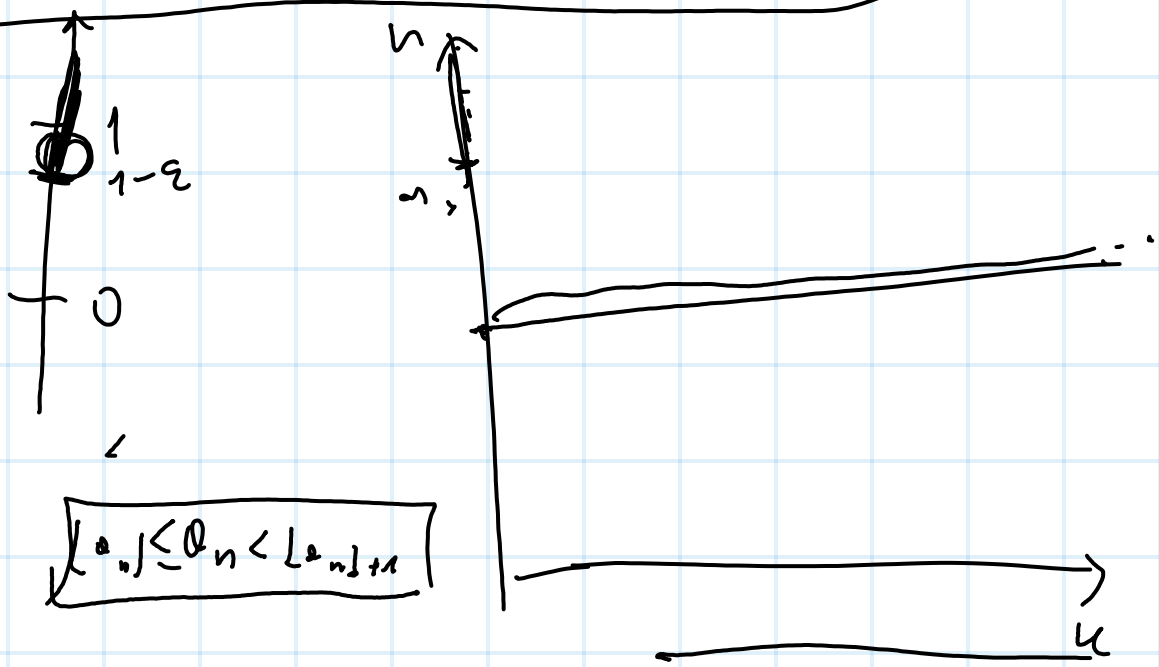
n



$\frac{n}{n+2023} \rightarrow 1$

$\forall \epsilon > 0$ FREQ INK DEFINN DEF. INN FREQ INK $(-1)^n \cdot (-1)^{n+2023}$ $\left(\frac{9}{10}\right)$

$\epsilon = \frac{1}{10}$



$\left(1 + \frac{1}{a_n}\right)^{k_n}$ $0 < \alpha < 1$ $(n^n)^\alpha = o(n!)$

$\lim_{n \rightarrow \infty} \frac{n!^{2023}}{(n^n)^{2022}}$

$\frac{n!}{(n^n)^\alpha} \rightarrow +\infty$

$\lim_{n \rightarrow \infty} \left(\frac{n!}{(n^n)^{\frac{2022}{2023}}} \right)^{2023}$