TD Analyse:

Définition :

$u : \mathbb{N} \longrightarrow \mathbb{R}$

$n \longrightarrow u_n$

- $u_n = \frac{1}{n}$, $n \in \mathbb{N}^*$, $u_1 = \frac{1}{1} = 1$.

- $u_n = 1 + \frac{n^2}{2}$, $n \in \mathbb{N}$, $u_0 = 1$.

- u_n majorée, $\exists M \in \mathbb{R}$, $u_n \leq M$, $\forall x \in \mathbb{N}$

- u_n minorée, $\exists m \in \mathbb{R}$, $u_n \geq m$, $\forall x \in \mathbb{N}$

- u_n bornée, $\exists M$, $m \in \mathbb{R}$, $u_n \geq m$, $\forall x \in \mathbb{N}$, $u_n = u_{n_0}$.

- u_n périodique $\exists k \in \mathbb{N}$ tq $u_{n+k} = u_n$, $\forall n \in \mathbb{N}$

- $u_n \nearrow$, $u_{n+1} \geq u_n$, u_{n+1}, Si $u_n \neq 0$, $\frac{u_{n+1}}{u_n} \geq 1$.

- $u_n \searrow$, $u_{n+1} \leq u_n$, Si $u_n \neq 0$, $\frac{u_{n+1}}{u_n} \leq 1$.