Fiche remédiation - lundi 4/03.

Suites $u_{n+1} = f(u_n)$

1) $u_0 = -1$

$f(x) = 2\sqrt{x+3}$. $\forall n \in \mathbb{N}$, $u_{n+1} = f(u_n)$.

2) $u_0 > \frac{3}{4}$.

$f(x) = x^2 + \frac{3}{16}$. $\forall n \in \mathbb{N}$, $u_{n+1} = f(u_n)$

Calcul de limite

1) $u_n = 2^{n+1} \sin\left(\frac{\pi}{2^n}\right)$

2) $u_n = \dfrac{\ln(1+2^{-n})}{\ln(1+3^{-n})}$

1) $u_n = (n+1)^{3/2} - n^{3/2}$

2) $u_n = \dfrac{n!}{n^n}$

3) Soit $(u_n)_{n \geq 2}$ tq $\forall n \geq 2$, $u_n = \sum_{k=2}^{n} \frac{1}{k^k}$.

- Mq $\forall n \geq 2$, $u_n \leq \sum_{k=2}^{n} \frac{1}{2^k}$
- Mq (u_n) est convergente