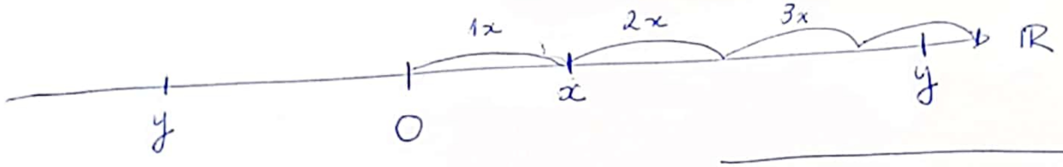
Lista 2

Entregar exercício 4 - Laboratório de Avaliação } dia 01/10.

exercícios 10, 13, 15a - Para monitor

5, 9b, 12 - vamos discutir em aula na 2ª feira

3a, 7, outros do 9, } Victor.

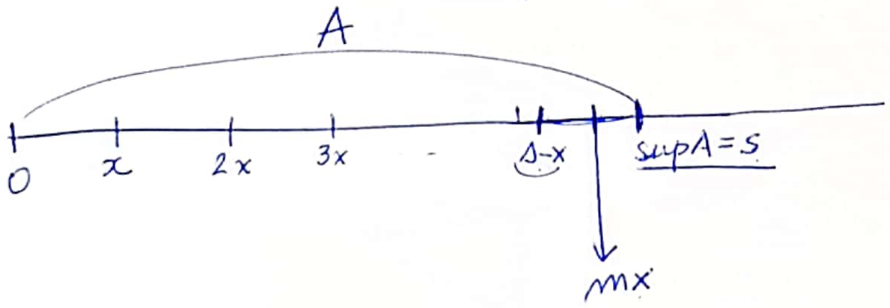


Se $y \leq 0$

$1 \cdot x > y$

$y > 0$

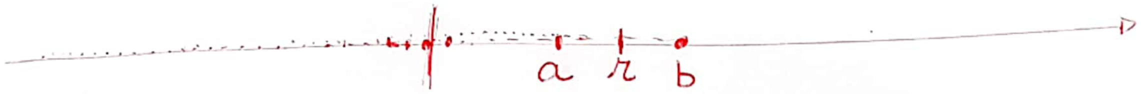
$$\boxed{\exists\, n \in \mathbb{N} \text{ tq } nx > y}$$

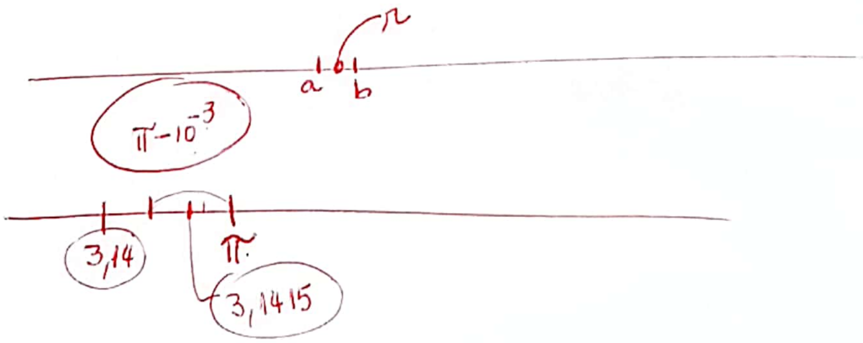


$$s - x < mx$$

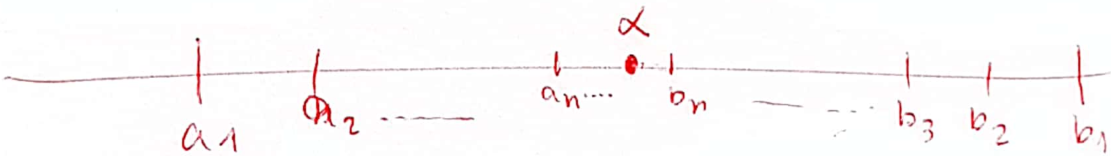
$$s < mx + x = \underbrace{(m+1)}_{\in \mathbb{N}}x \in A$$

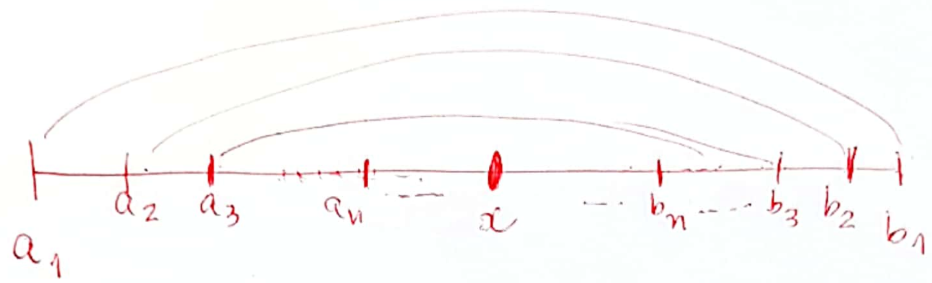
$\forall x \in \mathbb{R},\ x > 0$ existe $n \in \mathbb{N}$ tal que $\frac{1}{n} < x$





Se $\lim (b_n - a_n) = 0$





$$\boxed{x \in \bigcap_{n=1}^{\infty} [a_n, b_n]} \iff x \in [a_n, b_n], \ \forall n.$$

$A = \{a_1, a_2, \dots\} \neq \emptyset$, é limitado superiormente

$$a_j \leq b_n, \quad \forall j, \forall n.$$

$$\exists \ \sup A = \alpha$$

$$a_n \leq \alpha \leq b_n, \quad \forall x$$

$$\alpha \in [a_n, b_n], \quad \forall n.$$

$I_n = \left]0, \frac{1}{n}\right]$

$I_1 = \left]0, 1\right]$

$I_2 = \left]0, \frac{1}{2}\right]$

$I_3 = \left]0, \frac{1}{3}\right]$

$\vdots$

$$\bigcap_{n=1}^{\infty} I_n = \emptyset$$

$J_n = \left[0, \frac{1}{n}\right]$

$\bigcap J_n = \{0\}$. pois

$0 \in J_n, \forall n$

$K_n = \left]0, 1 + \frac{1}{n}\right]$

$\bigcap K_n \neq \emptyset$ $\quad 1 \in K_n, \forall n$