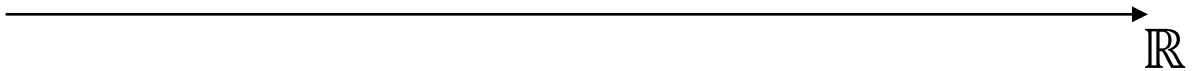


INTERVALOS REAIS

A RETA REAL

A cada ponto de uma reta pode-se associar um único número real.

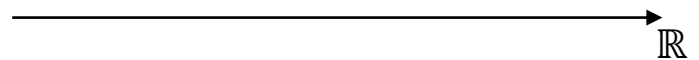


INTERVALOS REAIS

Considere $a, b \in \mathbb{R}$, no qual $a < b$. Os intervalos reais são os subconjuntos de \mathbb{R} apresentados a seguir:

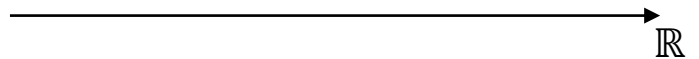
Intervalo fechado

$$\{x \in \mathbb{R} \mid a \leq x \leq b\} = [a, b]$$



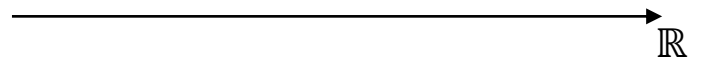
Intervalo aberto

$$\{x \in \mathbb{R} \mid a < x < b\} =]a, b[$$



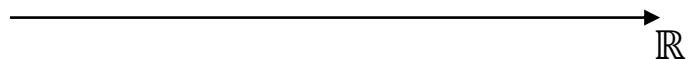
Intervalo fechado à esquerda

$$\{x \in \mathbb{R} \mid a \leq x < b\} = [a, b[$$



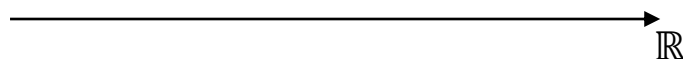
Intervalo fechado à direita

$$\{x \in \mathbb{R} \mid a < x \leq b\} =]a, b]$$

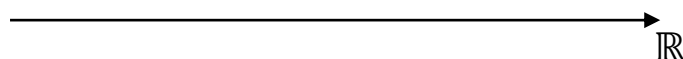


Intervalo ilimitado

$$\{x \in \mathbb{R} \mid x \geq a\} = [a, +\infty[$$



$$\{x \in \mathbb{R} \mid x < a\} =]-\infty, a[$$



OPERAÇÕES COM INTERVALOS

Intervalos são subconjuntos de \mathbb{R} , logo é possível fazer operações com eles.

EXEMPLO:

Dados os intervalos $A =]4, 8]$, $B = [6, 10]$, $C =]-3, +\infty[$ e $D =]-\infty, 7]$, determinar:

- $A \cup B$
- $A \cap B$
- $C - D$

ANOTAÇÕES: