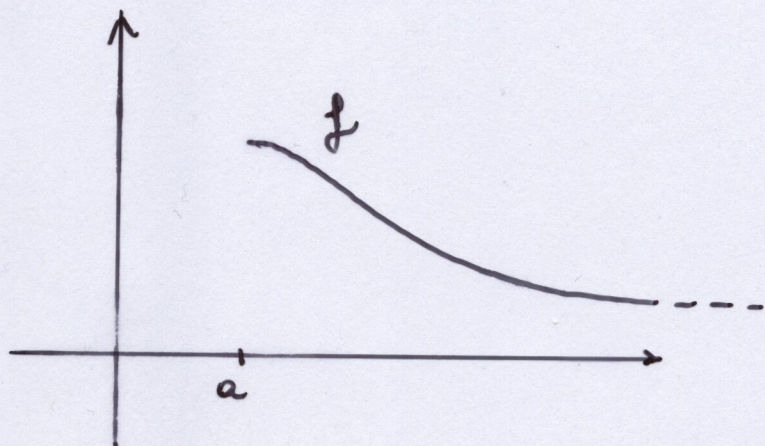


INTEGRALI IMPROPRI

1) $f: [a, +\infty[\rightarrow \mathbb{R}$ limitata ($a \in \mathbb{R}$)

Es: $f(x) = \frac{1}{x^\alpha}$, $x \geq 1$ con $\alpha > 0$

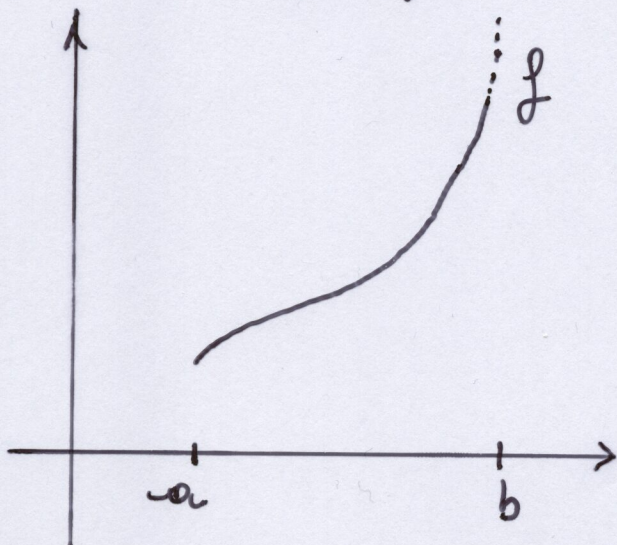


$$\int_a^{+\infty} f(x) dx$$

$$\left(\int_1^{+\infty} \frac{1}{x^\alpha} dx \right)$$

2) $f: [a, b[\rightarrow \mathbb{R}$ non limitata ($a < b$)

Es: $f(x) = \frac{1}{(1-x)^\alpha}$, $0 \leq x < 1$ con $\alpha > 0$



$$\int_a^b f(x) dx$$

$$\left(\int_0^1 \frac{1}{(1-x)^\alpha} dx \right)$$