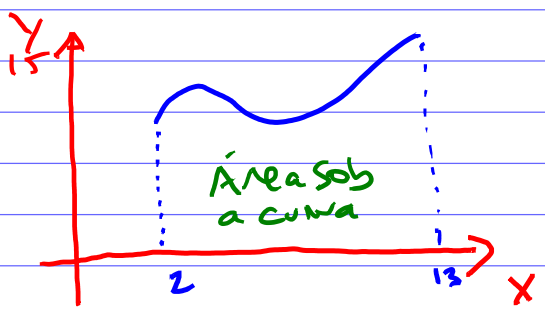
Notação Sigma

$$1+2+3+4$$

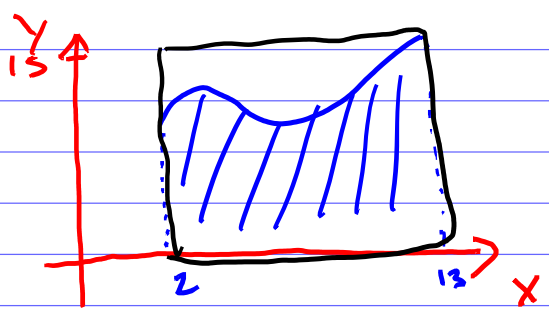
$$\sum_{i=1}^{4} i = 1+2+3+4$$

$$\sum_{i=1}^{4} i^3 = 1^3+2^3+3^3+4^3$$

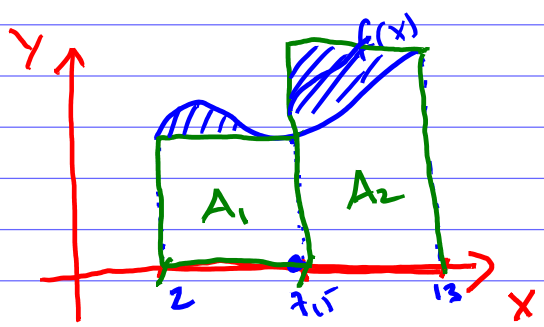
"for"



Começamos c/ estimativas



1 retângulo

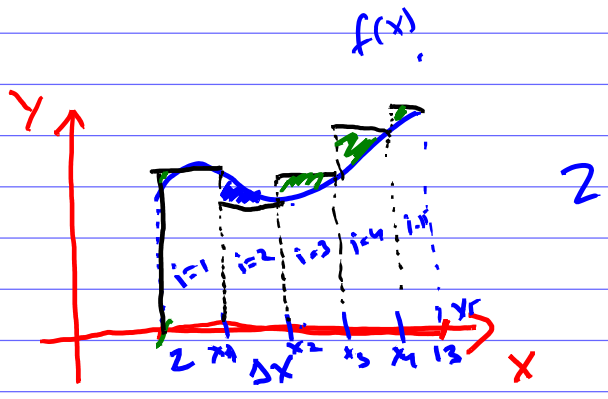


2 retângulos

$$A \approx \sum_{i=1}^{2} A_i$$

$$A \approx \sum_{i=1}^{2} f(x_i)\,\Delta x$$

$$A = \lim_{n \to +\infty} \sum_{i=1}^{n} f(x_i)\,\Delta x$$



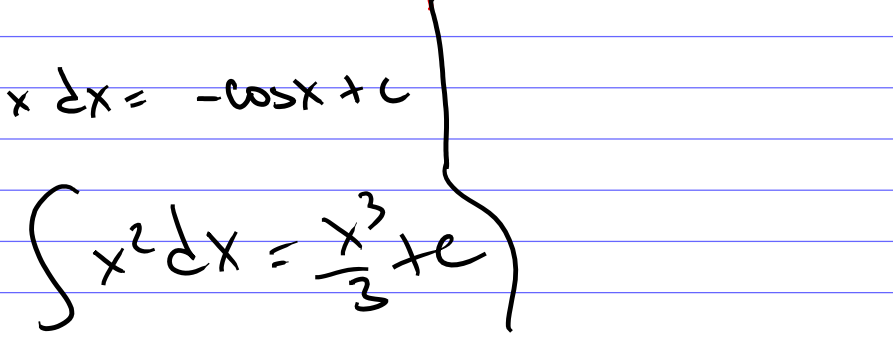
2

$$A \approx \sum_{i=1}^{5} f(x_i)\,\Delta x$$

$$A = \lim_{n \to +\infty} \sum_{i=1}^{n} f(x_i)\,\Delta x$$

Riemman

$$A = \lim_{\|P\| \to 0} \sum_{i=1}^{n} f(x_i)\,\Delta x_i$$



$$A = \lim_{n \to +\infty} \sum_{i=1}^{n} f(x_i)\,\Delta x$$

$m \cdot m = m^2$

$m^2 \cdot m = m^3$

$\frac{kg}{m} \cdot m = kg$

$\frac{C}{m} \cdot m = C$

Antiderivada *

$$A = \int f(x)\,dx$$

Integral **

$$A = \int_a^b f(x)\,dx$$

* No livro: Integral Indefinida

** No livro: Integral Definida

$$\int \cos x\,dx = \operatorname{sen} x + C$$

$$\int \operatorname{sen} x\,dx = -\cos x + C$$

$$\int x^2\,dx = \frac{x^3}{3} + C$$