

## METODO DE ROMBERG

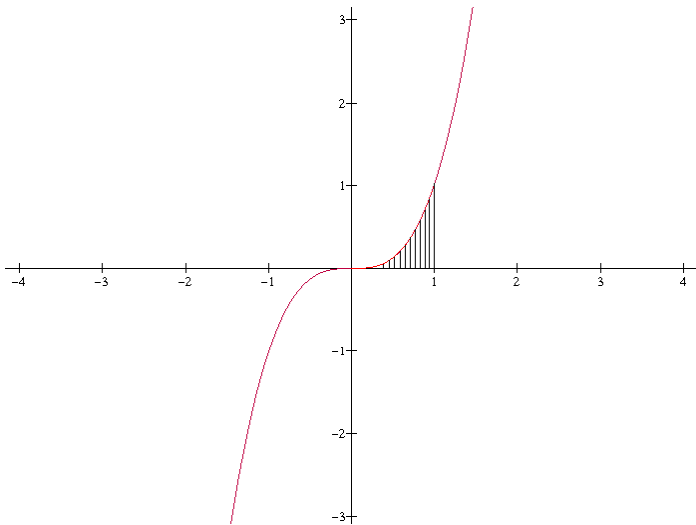
$$\int_0^1 x^3 dx$$

Resultados previos con Trapecios

$$1 \text{ Trapecio} = 0.5$$

$$2 \text{ Trapecios} = 0.3125$$

$$4 \text{ Trapecios} = 0.265625$$



$$I_k = \frac{4^n I_{k+1} - I_k}{4^n - 1}$$

$$I_0 = \frac{4^1 * 0.3125 - 0.5}{4^1 - 1} \rightarrow 0.25$$

$$I_1 = \frac{4^1 * 0.265625 - 0.3125}{4^1 - 1} \rightarrow 0.25$$

$$I_0 = \frac{4^2 * 0.25 - 0.25}{4^2 - 1} \rightarrow 0.25$$

**El resultado es 0.25**