

$$\int_{-1}^1 x^3 dx$$

$$\Delta x_i = \frac{2}{n}$$

$$\xi_i = -1 + \frac{2i}{n}$$

$$\lim_{n \rightarrow \infty} \sum_{i=1}^n \left(\frac{2i-n}{n} \right)^3 \frac{2}{n} = \lim_{n \rightarrow \infty} \frac{2}{n^4} \sum_{i=1}^n$$

$$1 \cdot 8i^3 - 3 \cdot 4i^2 + 3 \cdot 2i - 1$$