

$$f(x) = \sqrt[5]{x}, \quad 1 \leq x \leq 19. \quad \Delta x = (19 - 1)/n = 18/n \text{ and } x_i = 1 + i \Delta x = 1 + 18i/n.$$

$$A = \lim_{n \rightarrow \infty} R_n = \lim_{n \rightarrow \infty} \sum_{i=1}^n f(x_i) \Delta x = \lim_{n \rightarrow \infty} \sum_{i=1}^n \sqrt[5]{1 + \frac{18i}{n}} \cdot \frac{18}{n}.$$