

## 数Ⅲ (区分求積法①)

$$\textcircled{1} \lim_{n \rightarrow \infty} \frac{1}{n} \sum_{k=1}^n f\left(\frac{k}{n}\right) = \lim_{n \rightarrow \infty} \frac{1}{n} \sum_{k=0}^{n-1} f\left(\frac{k}{n}\right) = \textcircled{1}$$

② 次の極限值を求めよ。

$$\textcircled{2} \lim_{n \rightarrow \infty} \frac{1}{n} \left\{ \left(\frac{1}{n}\right)^2 + \left(\frac{2}{n}\right)^2 + \cdots + \left(\frac{n}{n}\right)^2 \right\}$$

$$\textcircled{3} \lim_{n \rightarrow \infty} \frac{1}{n} \left\{ \left(1 + \frac{1}{n}\right)^2 + \left(1 + \frac{2}{n}\right)^2 + \cdots + \left(1 + \frac{n}{n}\right)^2 \right\}$$

