

2004 年京大後期理 3

$$f(\vec{x}) = f\left(\frac{1}{3}\vec{x} + \frac{1}{3}\vec{x} + \frac{1}{3}\vec{x}\right) = f\left(\frac{1}{3}\vec{x} + \frac{1}{3}\vec{x}\right) + f\left(\frac{1}{3}\vec{x}\right) = f\left(\frac{1}{3}\vec{x}\right) + f\left(\frac{1}{3}\vec{x}\right) + f\left(\frac{1}{3}\vec{x}\right) = 3f\left(\frac{1}{3}\vec{x}\right)$$

$$f(\vec{x}) = 3f\left(\frac{1}{3}\vec{x}\right) \quad \therefore f\left(\frac{1}{3}\vec{x}\right) = \frac{1}{3}f(\vec{x}) \quad (\text{証明終})$$