

$$\begin{array}{c} X \\ \Omega \\ X \in \\ f(\omega) \\ \Omega \\ ? \\ f(\omega) \\ ? \\ X \\ F(X) \\ x \\ X \\ ? \\ ? \end{array}$$

$$(1) \quad F(x) = X < x$$

$$\begin{array}{c} ? \\ F(X) \\ f(x) \\ X \\ f(x) \\ F'(x) \\ ? \\ f(x) \\ (X) \\ ? \end{array}$$

$$(X) = \sum_{i=1}^n x_i \cdot p_i$$

$$(2) \quad ?$$

$$(X) = \int\limits_{-\infty}^{\infty} x f(x) dx$$

$$(3)$$

$$\begin{array}{c} (X) \\ X \\ (X) = \\ (X - \\ X)^2 \\ (X) = \\ (X - \\ a)^2 \\ q = \\ X \\ (X) = \sum_{i=1}^n (x_i - X)^2 \cdot p_i \end{array}$$

$$(4)$$

$$\begin{array}{c} X \\ (X) = \int\limits_{-\infty}^{\infty} (x - X)^2 f(x) dx \end{array}$$

$$(5)$$

$$\begin{array}{c} \sigma_X = \\ \sqrt{X} \\ X \\ X \\ \mu_2 \\ X \\ ? \\ F(s) \\ f(t) \\ f(t) \\ F(s) \\ \hat{s} = \\ \theta + \\ i\omega \\ F(s) = f(t) = \int\limits_0^{\infty} e^{-st} f(t) dt \end{array}$$

$$(6)$$

$$\begin{array}{c} ? \\ f(t) : + \\ \bigcup 0 \rightarrow \\ [0, +\infty) \\ |f(t)| < \\ K e^{\omega t} \\ K > \\ 0, \omega 0 \\ \forall \alpha \quad \beta \in \end{array}$$