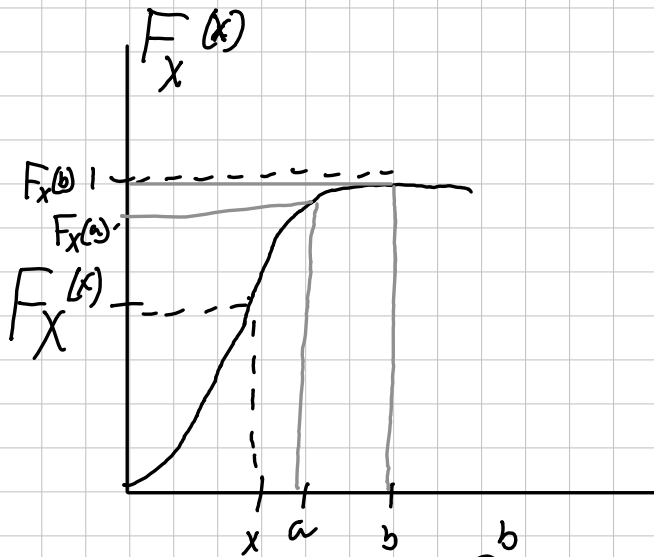$F_X{}^{(x)}: cdf$

cummulative density function

$$F_X{}^{(x)} = p(X \leq x) = \int_{-\infty}^{x} f(t)\,dt$$

Svagt montont stigende

$$\lim_{x \to \infty} F_X{}^{(x)} = 1$$

$$P(X \in [a,b]) = \int_a^b f_X{}^{(x)}\,dx = F_X{}^{(b)} - F_X{}^{(a)}$$