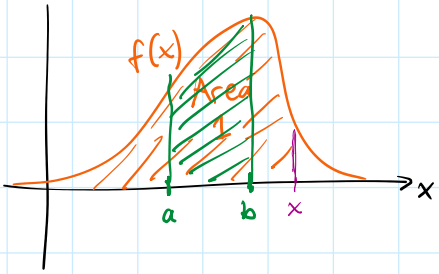
CONTINUOUS RANDOM VARIABLES

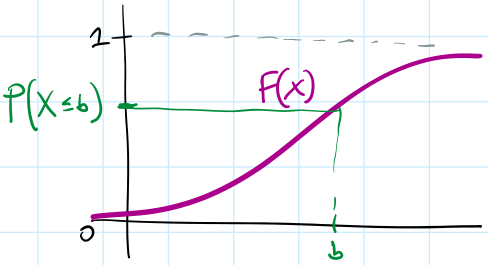
pdf: probability density function

$f(x)$ such that $P(a \le X \le b) = \int_a^b f(x)\,dx$



Note: $P(X = x) = 0$

cdf: $F(x)$ such that $P(X \le b) = F(b) = \int_{-\infty}^{b} f(x)\,dx$



different $F(x)$ to obtain $f(x)$

If, $F(x) = \int_{-\infty}^{b} f(x)\,dx$

then Fundamental Thm of Calc. says $F'(x) = f(x)$.