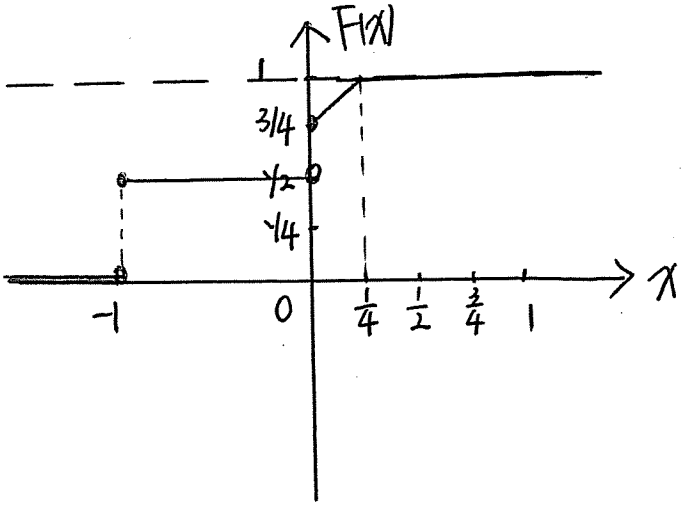
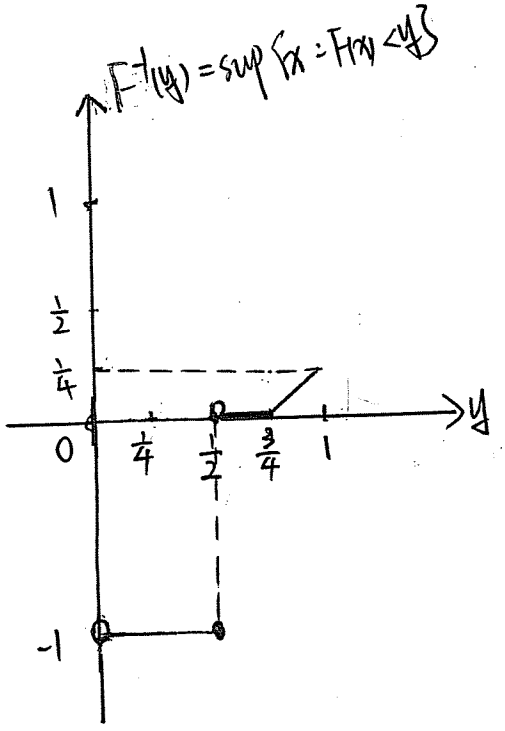
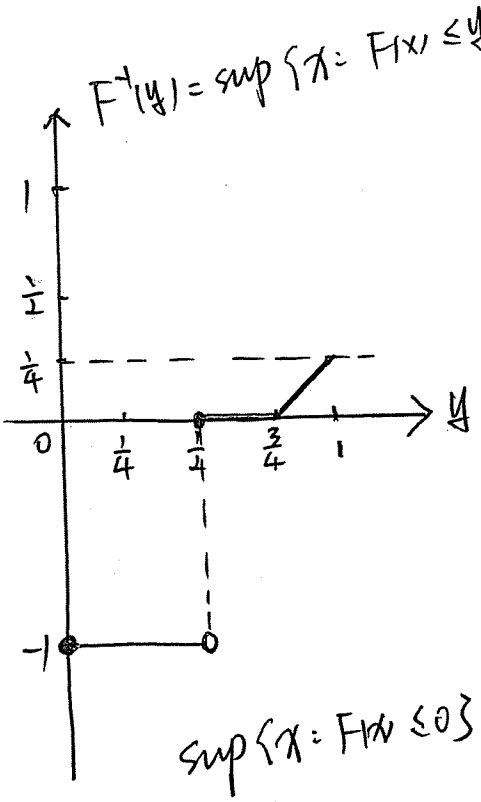
$$F(x) = \begin{cases} 0 & x \in (-\infty, -1) \\ \frac{1}{2} & x \in [-1, 0) \\ x + \frac{3}{4} & x \in [0, \frac{1}{4}) \\ 1 & x \in [\frac{1}{4}, +\infty) \end{cases}$$





$\sup\{x : F(x) < 0\}$ doesn't exist



$\sup\{x : F(x) \leq 0\} = -1$