

3.3 1)

$$f(4x-1) > f(9-x) \Rightarrow 4x-1 < 9-x \Rightarrow 5x < 10 \Rightarrow \boxed{x < 2}$$

3.3 2)

$$f(3x+1) < f(x+7) \Rightarrow 3x+1 > x+7 \Rightarrow 2x > 6 \Rightarrow \boxed{x > 3}$$

3.3 3)

$$f(\ln x + 1) \leq f(2 + \ln 3) \Rightarrow \ln x + 1 \geq 2 + \ln 3 \Rightarrow \ln x \geq 1 + \ln 3 \Rightarrow$$

$$\Rightarrow \ln x \geq \ln e + \ln 3 \Rightarrow \ln x \geq \ln e + \ln 3 \Rightarrow \ln x \geq \ln 3e \Rightarrow \boxed{x \geq 3e}$$