

3.2 1)

$$f(3x-4) > f(2x+1) \xRightarrow{f \nearrow} 3x-4 > 2x+1 \Rightarrow \boxed{x > 5}$$

3.2 2)

$$f(2x-4) > f(5x+8) \xRightarrow{f \nearrow} 2x-4 > 5x+8 \Rightarrow -3x > 12 \Rightarrow \boxed{x < -4}$$

3.2 3)

$$f(x^2-4) \leq f(3x) \xRightarrow{f \nearrow} x^2-4 \leq 3x \Rightarrow x^2-3x-4 \leq 0$$

$$\Delta = 25 \quad x_{1,2} = \frac{3 \pm 5}{2} \Rightarrow \begin{cases} x_1 = 4 \\ x_2 = -1 \end{cases} \Rightarrow \boxed{-1 \leq x \leq 4}$$