

$$\text{slope}(P_1P) \leq \text{slope}(P_1P_2) \leq \text{slope}(PP_2)$$

$$x_1 < x_2 \Rightarrow f'(x_1) \leq \frac{f(x_2) - f(x_1)}{x_2 - x_1} \leq f'(x_2)$$

$P_1 = (x_1, f(x_1))$

$P_2 = (x_2, f(x_2))$

$P = (x, f(x))$

$x_1$

$x$

$x_2$

$\mathcal{F}$