

4.4
7

$$\textcircled{k} \dots \frac{10}{11} = \frac{4+a}{4+b} \longrightarrow \boxed{a=6}$$

$$f' = \frac{2(x^2+b) - 2x(2x+a)}{(x^2+b)^2}$$

$$f'(0) = \frac{2}{7} = \frac{2b}{b^2} = \frac{2}{b} \longrightarrow \boxed{b=7}$$

$$\textcircled{p} \quad y = \frac{2x+6}{x^2+7}$$

$$\text{I} \quad x \in \text{II} \quad (0, \frac{6}{7}) \quad (-3, 0)$$

$$\text{III} \quad m = \lim_{x \rightarrow \pm\infty} \frac{2x+6}{x(x^2+7)} = 0 \quad n = \lim_{x \rightarrow \pm\infty} \frac{2x+6}{x^2+7} = 0 \longrightarrow \boxed{y=0}$$

$$\text{IV} \quad y' = \frac{2x^2+14-4x^2-12x}{(x^2+7)^2} = \frac{-2(x^2+6x-7)}{(x^2+7)^2} = 0 \longrightarrow x = -7, 1$$

$$x < -7 \quad x > 1 \quad \text{IV} \quad -7 < x < 1$$

$$\min(-7, \frac{4}{7}) \quad \max(1, 1)$$

