

محلها در دفتر / دو از هم مسطح

$$P(\alpha) = b = P(\alpha) \text{ و } P(\alpha) = P(\alpha)$$

$$P'(x) = \begin{cases} 0 & x < \alpha \\ m(x-\alpha)^{m-1} & x > \alpha \end{cases}$$

تفاوت دو نقطه را بر دو دسته می‌کنیم، یکی $x < \alpha$ و دیگری $x > \alpha$ و با $m \geq 1$ بودن حاصل می‌شود که به ازای $x < \alpha$ مقدار m (مستقیم)

$$-\sqrt[3]{x} < 0 \Rightarrow g(x) = \frac{1}{x^3 + x^3} = \frac{1}{2x^3}$$

$$\Rightarrow \log g(x) = \frac{1}{\sqrt[3]{\frac{1}{2x^3}} - 1 \frac{1}{2x^3}} = \frac{1}{\sqrt[3]{\frac{1}{2x^3}}}$$

$$= \frac{1}{\frac{1}{2x}} = 2x$$

$$\Rightarrow (P(g(x)))' = g'(x) P'(g(x)) = 1$$

$$g'(-\sqrt[3]{x}) P'(g(-\sqrt[3]{x})) = \sqrt[3]{1}$$

$$P(x) = y \Rightarrow P(x) = -x\alpha - \alpha$$

$$P'(x) = -\alpha \Rightarrow P'(x) = \frac{1}{x}$$

$$\Rightarrow -\alpha - (-x\alpha - \alpha) = x \Rightarrow x\alpha = x \Rightarrow \alpha = \frac{1}{x}$$

$$P(x) = \frac{1}{x} (x) - \alpha = -\frac{1}{x}$$

$$\Rightarrow \frac{P(x)}{P'(x)} = \frac{1}{x} \times \left(\frac{1}{x}\right) = \sqrt[3]{\frac{1}{x}}$$

$$g(x) = \frac{1}{\sqrt[3]{x^3 - 1}} \Rightarrow g'(x) = \frac{-x}{\sqrt[3]{(x^3 - 1)^4}}$$

$$\Rightarrow g'\left(\frac{\sqrt[3]{14}}{1}\right) = \frac{-\frac{1}{\sqrt[3]{14}}}{\sqrt[3]{\left(\frac{1}{14}\right)^4}} = \frac{-14}{\sqrt[3]{14}} = -14\sqrt[3]{14}$$

$$g\left(\frac{\sqrt[3]{14}}{1}\right) = \frac{1}{\sqrt[3]{\frac{1}{14} - 1}} = 2$$

$$P(x) = (x^3)^2 + 1 \Rightarrow 14x^2 + 1 \Rightarrow P'(x) = 3x^2 \Rightarrow P'(x) = 6x$$

$$(P(g))'\left(\frac{\sqrt[3]{14}}{1}\right) = g'(x) P'(g(x)) = \frac{(-14\sqrt[3]{14})(6x)}{(-14\sqrt[3]{14})} = \sqrt[3]{14}$$

$$P(x) = \begin{cases} a + |x| & x < 1 \\ b\sqrt[3]{x^3} & x \geq 1 \end{cases}$$

$$\Rightarrow P'(x) = \begin{cases} b\sqrt[3]{x^3} & x \geq 1 \\ a + x & 0 \leq x < 1 \\ a - x & x \leq 0 \end{cases} \Rightarrow P'(x) = \begin{cases} \frac{1}{3} \frac{b}{\sqrt[3]{x}} & x \geq 1 \\ 1 & 0 \leq x < 1 \\ -1 & x \leq 0 \end{cases}$$

$$P(1) = a + 1 = b \Rightarrow a = \frac{1}{3} \left\{ \begin{array}{l} a + b \cdot \frac{1}{3} + \frac{1}{3} = \sqrt[3]{1} \\ P'(1) = 1 = \frac{1}{3} \frac{b}{1} \Rightarrow b = \frac{1}{3} \end{array} \right.$$

$$P'(x) = \frac{(-x)(\sqrt[3]{x^3}) - (\frac{1}{3}\sqrt[3]{x})}{(\sqrt[3]{x^3})^2}, \quad x \leq 1$$

$$\Rightarrow P'(1) = \frac{-1 - \frac{1}{3}}{1} = -\frac{4}{3}$$

$$g(x) = \frac{\sqrt[3]{(x-1)^3} + \sqrt[3]{x}}{\sqrt[3]{x^3}} = \frac{x-1 + \sqrt[3]{x}}{\sqrt[3]{x^3}}, \quad x \leq 1$$

$$\Rightarrow g'(x) = \frac{(-1 + \frac{1}{3\sqrt[3]{x}})(\sqrt[3]{x^3}) - (\frac{1}{3\sqrt[3]{x}})(x-1 + \sqrt[3]{x})}{(\sqrt[3]{x^3})^2}$$

$$\Rightarrow g'(1) = -1 + \frac{1}{3\sqrt[3]{1}} - \frac{1}{3} - \frac{1\sqrt[3]{1}}{3} = -\left(\frac{2}{3} + \frac{\sqrt[3]{1}}{3}\right)$$

$$P'(1) = g'(1) = \frac{-1}{3} + 1\left(\frac{2}{3} + \frac{\sqrt[3]{1}}{3}\right) = \sqrt[3]{\frac{1}{3}}$$

$$ab + C = \frac{1}{a} \quad \leftarrow \text{محلها در دفتر}$$

$$b = -\frac{1}{a^2} \quad \leftarrow P'(x)$$

$$\Rightarrow (a)\left(-\frac{1}{a^2}\right) + C = \frac{1}{a} \Rightarrow C = \frac{1}{a} + \frac{1}{a}$$

$$\Rightarrow \sqrt[3]{aC} = 2$$

$$f'(-1), f'(\xi), f'(9), \dots \quad \text{و } f'(\alpha) = \lambda$$

$$g'(n) = f'(n+1) + \psi f'(\psi n + 10)$$

$$g'(-2) = \underbrace{f'(-1)}_{\frac{\psi}{\gamma}} + \psi \underbrace{f'(\xi)}_{\frac{\psi}{\gamma}} = \frac{\psi}{\gamma} + \frac{\psi}{\gamma} = \frac{2\psi}{\gamma}$$

$$f'(x) = \sqrt[3]{x+\psi} (1) + \frac{(x-\xi)}{\psi \sqrt[3]{(x+\psi)^2}} \quad -9$$

$$\Rightarrow f'(0) = \sqrt[3]{1} + \frac{1}{\psi \sqrt[3]{1^2}} = 1 + \frac{1}{\psi} = \frac{\psi+1}{\psi}$$

$$\lim_{h \rightarrow 0} \frac{f(\delta-h) - \psi f(\delta-h) + \gamma}{h(\delta-h)} \quad \text{loop}$$

$$\frac{-\gamma f(\delta-h) f'(\delta-h) + \psi f'(\delta-h)}{\delta - \gamma h}$$

$$\Rightarrow \frac{-\gamma f(\delta) f'(\delta) + \psi f'(\delta)}{\delta}$$

$$= \frac{(-\gamma)(\gamma) \left(\frac{\gamma\delta}{\psi} \right) + (\psi) \left(\frac{\gamma\delta}{\psi} \right)}{\delta} = \frac{-\gamma\delta}{\delta} = \boxed{-\frac{\gamma}{1\psi}}$$

$$\gamma y - \psi x = 1 \Rightarrow m = \frac{-a}{b} = \frac{\psi}{\gamma} = \frac{1}{\gamma} \quad -10$$

$$\Rightarrow \text{الميل } m = -\gamma \Rightarrow f'(x) = -\gamma$$

$$f'(x) = \gamma x - \epsilon \quad \xrightarrow{f'(x) = -\gamma} \quad \gamma x - \epsilon = -\gamma$$

$$\rightarrow \gamma x = -\gamma \rightarrow x = -1 \Rightarrow f(-1) = 1 - \epsilon + \alpha = \gamma$$

$$\Rightarrow \text{نقطة } = (1, \gamma)$$