

$$f \begin{cases} x^3 + 3ax^2 + b & x > 0 \\ -x^3 + 3ax^2 + b & x < 0 \end{cases}$$

$$f' \begin{cases} 3x^2 + 6ax & x > 0 \\ -3x^2 + 6ax & x < 0 \end{cases}$$

↓

$$x = -1 \quad \frac{b}{a} = -1$$

$$-\frac{1}{\mu} + \frac{1}{\mu} + b = \frac{1}{\mu} \quad b = \frac{1}{\mu}$$

$$-3 - 6a = 0 \quad a = -\frac{1}{2}$$

$$y_{\min} = \frac{-1}{\mu} \quad y_{\min} = \frac{1}{\mu} \times \frac{1}{\mu} + \frac{1}{\mu} + \frac{1}{\mu} = \frac{2}{\mu}$$

$$y_{\min} = \frac{1-a}{a+1} = \frac{-1}{\mu} \quad -a-1 = \mu - 2a$$

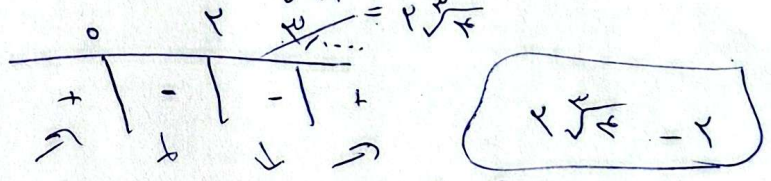
$$a = \mu$$

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

$$x = -\frac{1}{\mu} \Rightarrow 1 - \frac{1}{\mu}a + 1 = 0 \quad a = \mu \quad y = \frac{b x^2 + 1}{x^2 + 1} \quad x \rightarrow +\infty$$

~~$$\frac{b}{\mu} = \mu \quad b = 1\mu$$~~

$$f' = \frac{3x^2(x^2-1) - x^4(2x^2)}{(x^2-1)^2} = \frac{x^4(x^2-2)}{(x^2-1)^2}$$



$$f' = \frac{3x^2(x^2-2) - 2x^4}{(x^2-2)^2} = \frac{3x^4 - 6x^2 - 2x^4}{(x^2-2)^2} = \frac{x^4 - 6x^2}{(x^2-2)^2}$$

1.5

