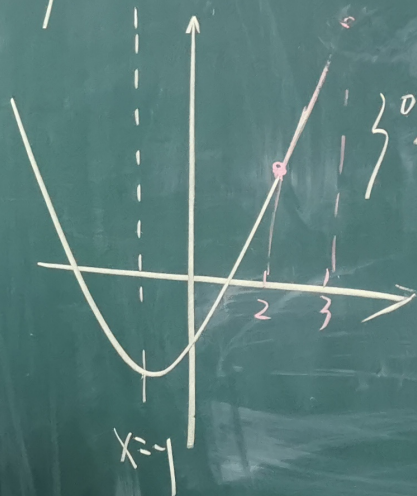


例1. 求最值问题

例1.

$$f(x) = 2x^2 + 4x - 1 \quad 2^{\circ} \frac{1}{2} - 2 \leq a \leq 2$$



$$f(x)_{\min} = f(a) = -a^2 - 3$$

$$1^{\circ} \frac{1}{2} a \leq 0$$

$$3^{\circ} \frac{1}{2} a > 2$$

$$f(x)_{\min} = f(2) = 1 - 4a$$

$$2^{\circ} \frac{1}{2} a > 0$$

$$f(x)_{\max} = f(-2) = 1 + 4a$$

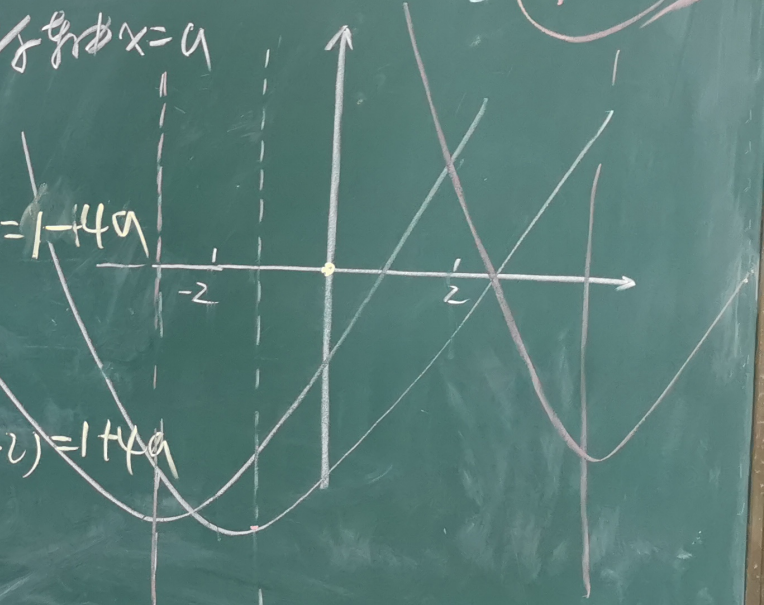
例2. 求:  $f(x) = x^2 - 2ax - 3$  在  $[-2, 2]$  上的最值

首先求最值

对称轴  $x = a$

对称轴在区间内

$\frac{1}{2}$  最小值





观察

~~$$\begin{aligned} &-(x-1) \\ &-(x^2+x+1) \end{aligned}$$~~

改变记号:  $x^3 - ax^2 - 2ax + a^2 - 1 = 0$

$$a^2 - (x^2 + 2x)a + x^3 - 1 = 0$$
$$\frac{(x-a-1)}{0} \frac{(x^2+x+1-a)}{0} = 0$$

$x = a+1$

$\Delta < 0 \Rightarrow 0 < \frac{x}{x^2}$

$\frac{x}{x^2}$

$\Delta = 0$   
 $a = \frac{x}{x^2}$

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