



数学II

第6章 微分法と積分法

方程式への応用



(例) $x^3 - 3x - 1 = 0$ の
異なる実数解の個数

$$y = x^3 - 3x - 1 \quad x > x >$$

$$y = x^3 - 3x - 1 \quad \text{と} \quad y = 0 \text{ (} x \text{軸)}$$

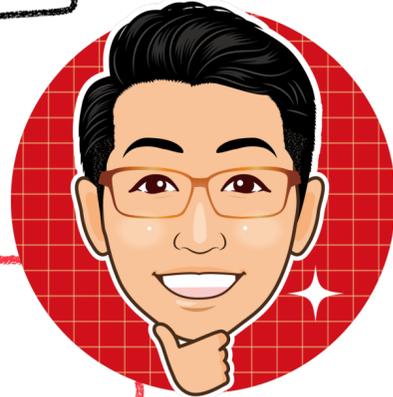
との交点の個数を考えよう

$$y' = 3x^2 - 3$$

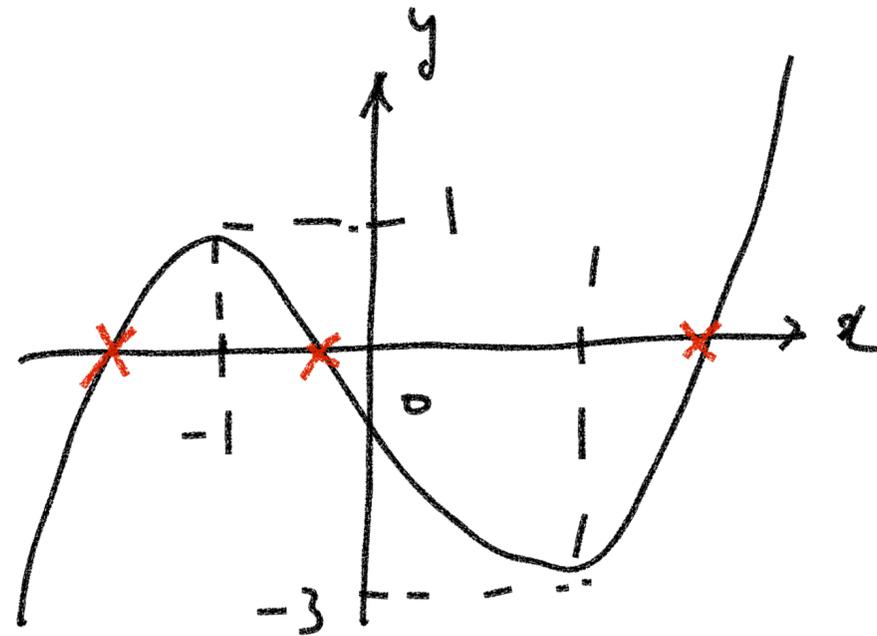
$$= 3(x+1)(x-1)$$

$$y' = 0 \quad \text{と} \quad y > >$$

$$x = \pm 1$$



x	...	-1	...	1	...
y'	+	0	-	0	+
y	↗	1	↘	-3	↗

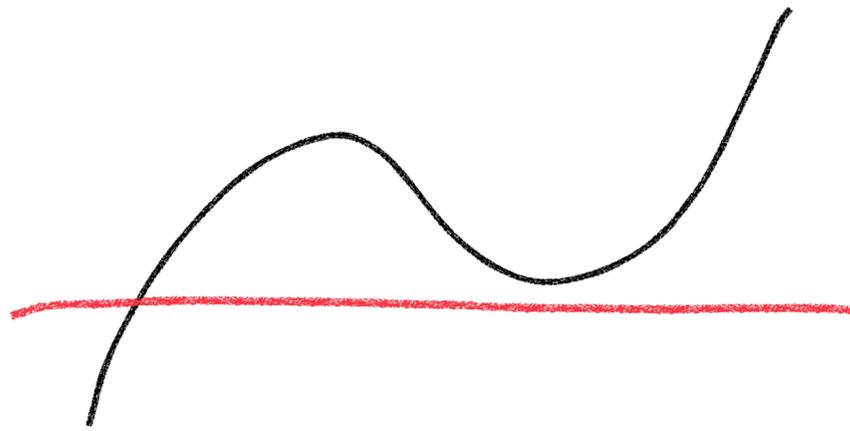


異なる実数解の個数 3個

<+α>

3次関数の形

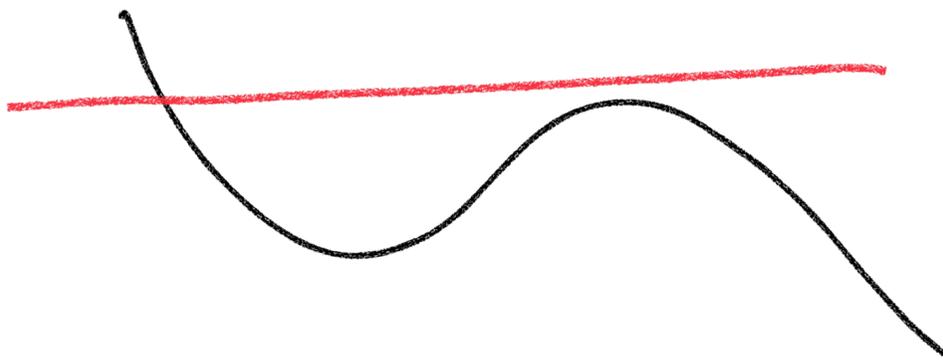
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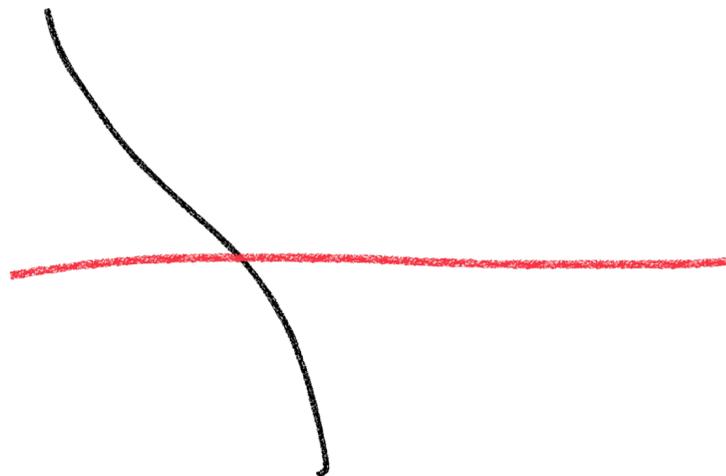
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授業中に考えましょう！！