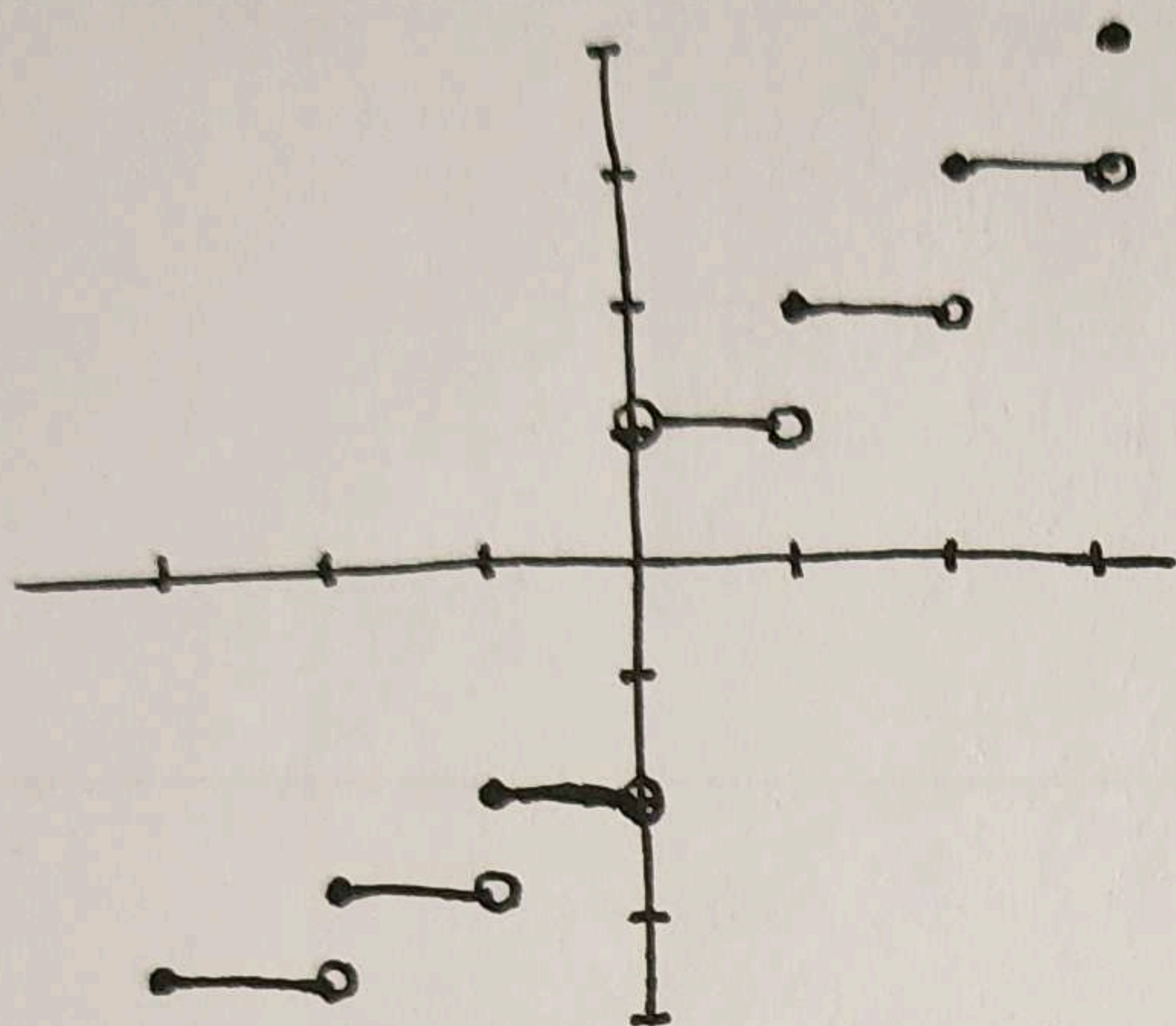


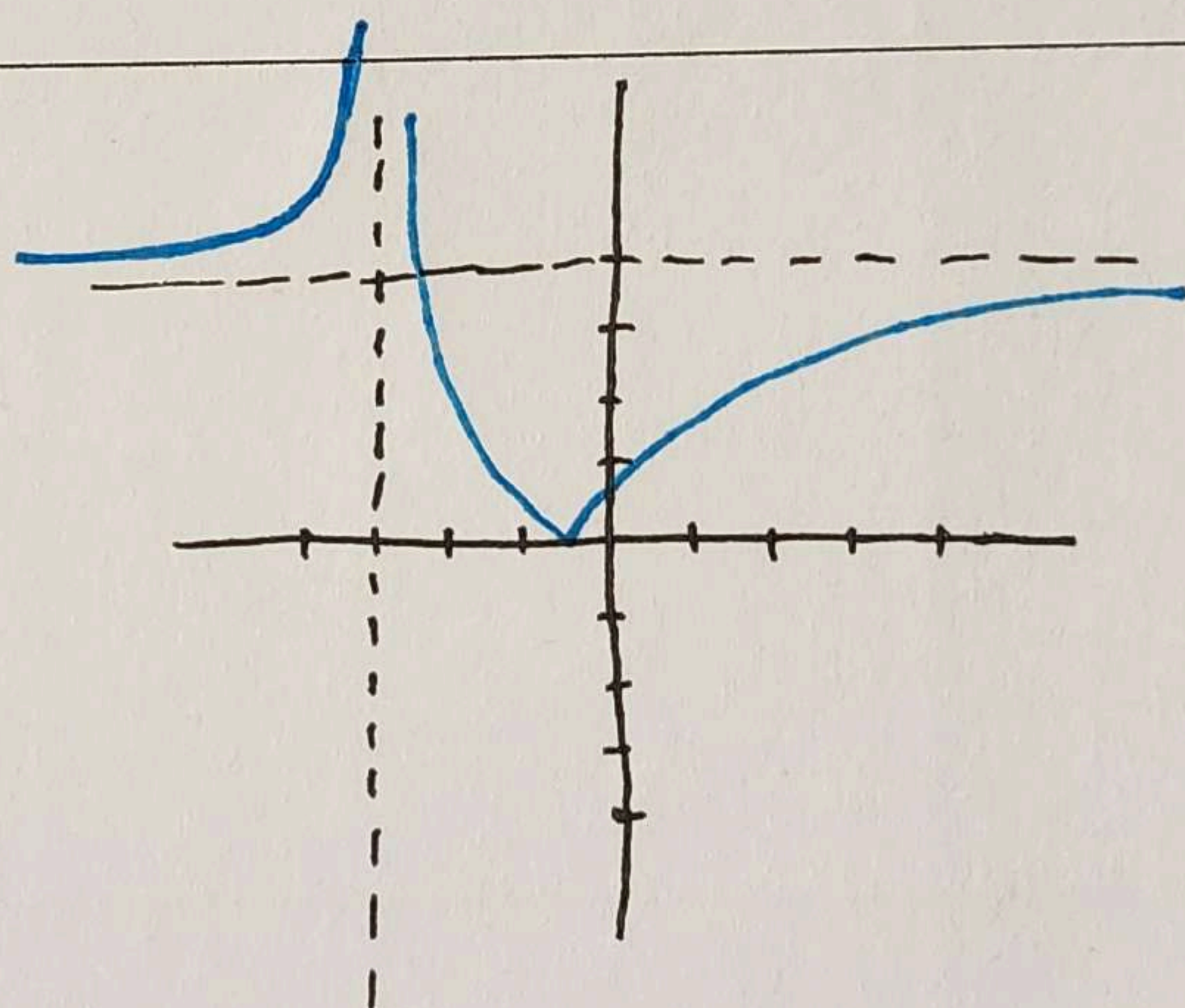
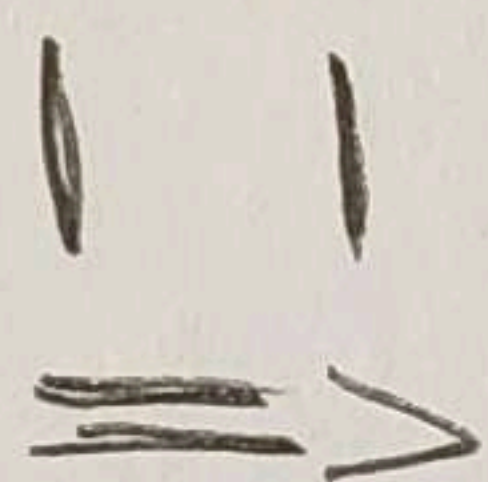
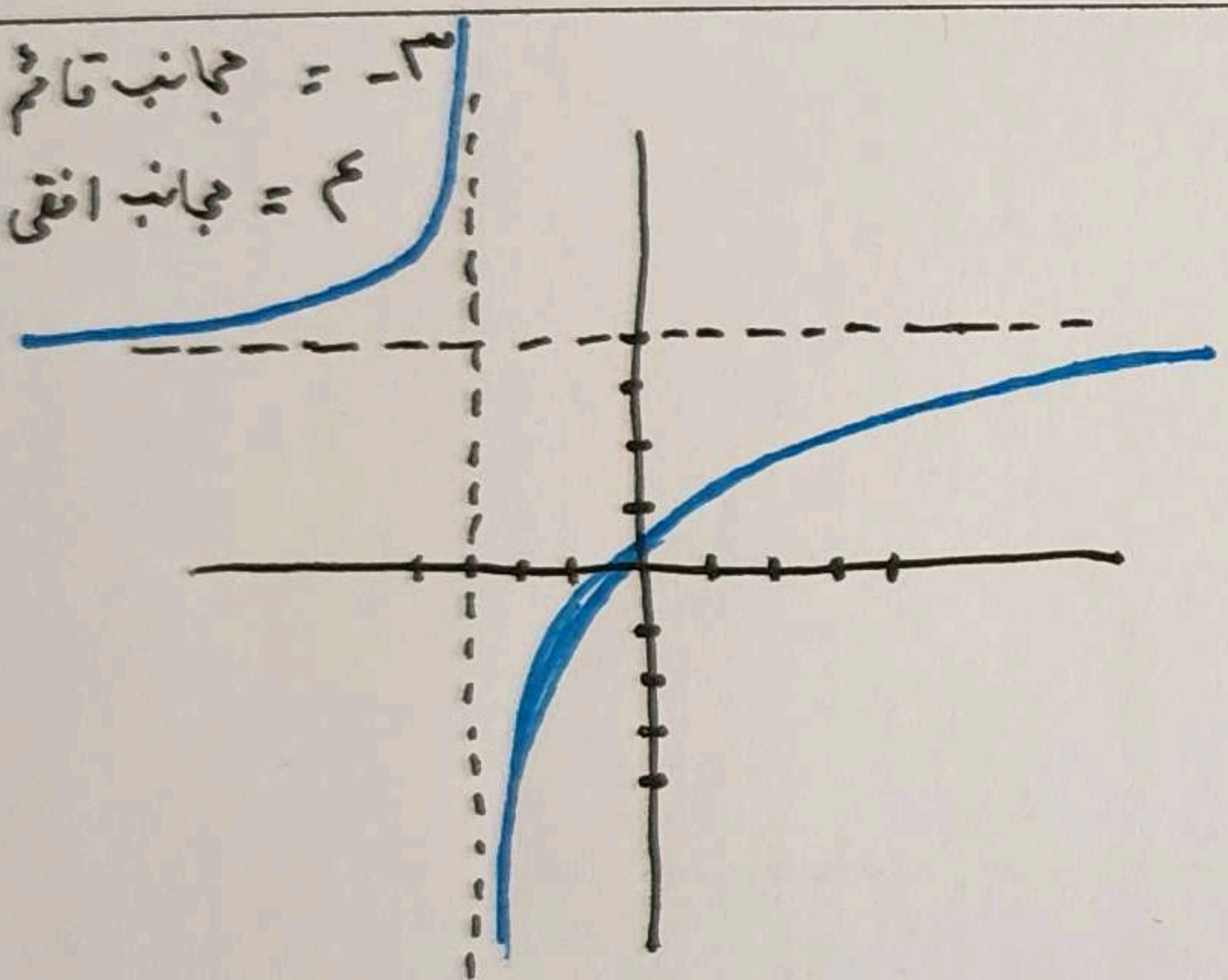
الف) $\sin^2 \rightarrow [0 \ 1] \Rightarrow 2\sin^2 \rightarrow [0 \ 2]$
 $\Rightarrow 2\sin^2 - 1 \rightarrow [-1 \ 1]$

ب) $\cos^3 \rightarrow [-1 \ 1]$
 $\Rightarrow 3\cos^3 \rightarrow [-3 \ 3]$
 $3\cos^3 - 4 \rightarrow [-7 \ -1]$



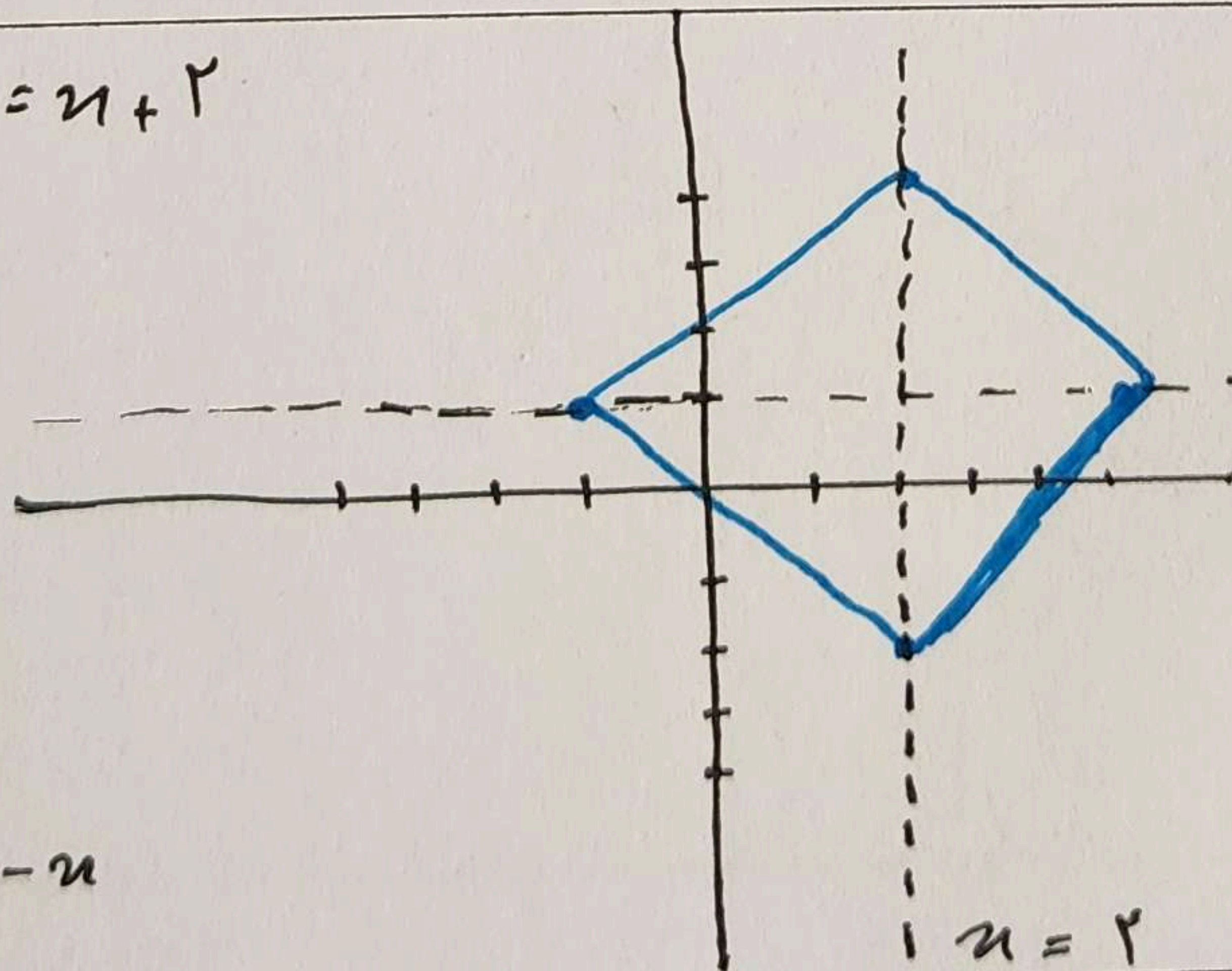
$\frac{x}{|x|} \in [1]$ $D_f = [-3 \ 3]$

م = مجانب افقی
 -3 = مجانب قائم



$y = x + 2$

$y = -x + 6$



$y = 1$

نمایم که کشید به مربع
 ضلعی دقیق با قطرهای
 ۶ واحد باشد؟

$y = x - 4$

$y = -x$

$x = 2$

الف) $t = x + \frac{1}{x} \geq 0 \Rightarrow x \geq 0 \rightarrow t \geq 2$

$f = t + 2\sqrt{t} \xrightarrow{t \geq 2} [2 + 2\sqrt{2} + \infty)$

ب)

$-\sin^2 x + \sin x + 3$

$\begin{cases} +1 \rightarrow 4 \\ -1 \rightarrow 0 \\ -\frac{b}{2a} \rightarrow 3.5 \end{cases}$

$R_f = [0 \ 4]$

