آزمونک

$$\lim_{x\to 2} \frac{3x-5}{x^2+ax+b} \Rightarrow x\to 2^+ \quad x^2+ax+b = 0^+ \to \checkmark$$ ۱-

$$x\to 2^- \quad x^2+ax+b = 0^+$$

$$x^2+ax+b = (x-2)^2 \to x^2-4x+4 \to a=-4,\ b=4 \to$$ ۴

$$\lim_{x\to \sqrt[3]{4}} \frac{x}{x^2+ax+b} = +\infty \to x^2+ax+b = 0^+ \checkmark$$ ۲-

$$x\to \sqrt[3]{4}^{\,+/-}$$

$$\to (x-\sqrt[3]{4})^2 = x^2 - 2\sqrt[3]{4}\,x + \sqrt[3]{16} \Rightarrow a = -\sqrt[3]{32} \quad b = \sqrt[3]{16}$$

$$\left[\frac{b}{a}\right] = \left[\sqrt[3]{\frac{16}{32}}\right] = \textcircled{1}$$

$$\lim_{x\to \left(\frac{1}{\sqrt{2}}\right)^+} \frac{[-x]+a}{\left|\frac{\sqrt{2}}{2}x+a\right|+a} = -\infty = \frac{-1+a}{\left|\frac{1}{2}^+ + a\right|+a} = -\infty \to$$ ۳

$$\left|\frac{1}{2}^+ + a\right| + a = 0 \longrightarrow \frac{1}{2}+a = -a \to a = -\frac{1}{4}^- \to [a] = -1$$