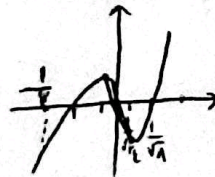


1

2



Y

下



$$\lim_{x \rightarrow -1} \frac{\sqrt{x+2} - \sqrt{x+1}}{1 + \sqrt{x}} \xrightarrow{\frac{0}{0}} \frac{\frac{1}{2\sqrt{x+2}} - \frac{1}{2\sqrt{x+1}}}{-\frac{1}{2\sqrt{x}}} = \frac{\frac{1}{2} \left(\frac{1}{\sqrt{x+2}} - \frac{1}{\sqrt{x+1}} \right)}{-\frac{1}{2\sqrt{x}}} = \frac{1}{\sqrt{x+2}} - \frac{1}{\sqrt{x+1}}$$

6

$$\lim_{x \rightarrow 1} \frac{2x - \sqrt{x+2}}{2x - \sqrt{x+1}} \xrightarrow{\frac{0}{0}} \frac{2 - \frac{1}{2\sqrt{x+2}}}{2 - \frac{1}{2\sqrt{x+1}}} = \frac{2 - \frac{1}{2}}{2 - \frac{1}{2}} = \frac{\frac{3}{2}}{\frac{3}{2}} = 1$$

7

$$\lim_{x \rightarrow 0} \frac{a + \sqrt{bx+c}}{x} = \frac{0}{0} \xrightarrow{\text{Hop}} \frac{b}{2\sqrt{bx+c}} = \frac{1}{2\sqrt{c}} \rightarrow 2b = \sqrt{c} \rightarrow 4b^2 = c$$

→ ... → $-a = \sqrt{bx+c} - \sqrt{c} = -a \rightarrow a^2 = c$

$$\frac{ab}{c} = \frac{ab}{4b^2} = \frac{1}{4b} = \left(-\frac{1}{2} \right)$$

8

$$-r_k \left(\frac{r-r_k}{r-r_k} = 1 \rightarrow r-r_k < 0 \rightarrow r < r_k \right) \quad \left\{ \begin{array}{l} \frac{r-r_k}{r-r_k} = 1 \rightarrow r-r_k > 0 \rightarrow r > r_k \\ \frac{r-r_k}{r-r_k} = 1 \rightarrow r-r_k = 0 \rightarrow r = r_k \end{array} \right. \rightarrow [-k] \cdot (-1)$$

9

$$\lim_{x \rightarrow 1} \frac{b\sqrt{x+2} - 2b}{ax-b} \xrightarrow{\frac{0}{0}} \frac{b}{a} = \frac{1}{4}$$

صورت منفرست است پس چون مقادیر منفرست و غیر منفرست داشته شده باید خارج هم منفرست باشد

$1a - b = 0 \rightarrow 1a = b$

$\frac{1a}{4 \times 4 \times 2 \times 4} = \left(\frac{1}{4} \right)$

$b = 1a$
 $x = 1$

10