

پاورس تری دوازدهم ریاضی پسران

$$x \rightarrow -2^+ \quad 2 \left[\frac{x}{2} \right] + a \left[\frac{0^+}{2} \right] = 2 + 0 = 2$$

$$x \rightarrow -2^- \quad 2 \left[\frac{x}{2} \right] + a \left[\frac{0^-}{2} \right] = 2 - a$$

$$\rightarrow 2 = 2 - a \rightarrow a = 2$$

$$\rightarrow \left[\frac{a}{2} \right] = \left[\frac{2}{2} \right] = 1$$

☆ افه نبره ۲۰

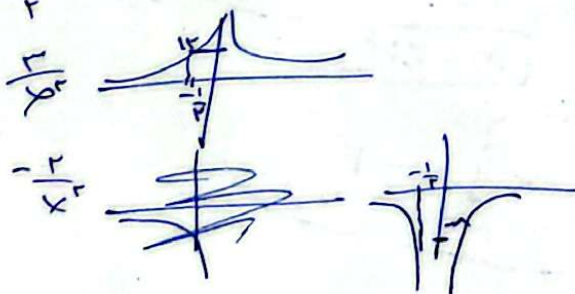
$$\lim_{x \rightarrow (\frac{\pi}{2})^-} [x \sin x - 1] = \left[1 - 1 \right] = [0] = -1$$

$$\lim_{x \rightarrow (\frac{\pi}{2})^-} \sin x = \left(\frac{1}{1} \right)^- = 1^-$$

$$\lim_{x \rightarrow -\frac{1}{e}} [1/x^2 - x] = \left[-1 + \frac{1}{e} \right] = \left[-\frac{1}{e} \right] = -1$$

$$\lim_{x \rightarrow -\frac{1}{e}} 1/x^2 = -1$$

$$\lim_{x \rightarrow -\frac{1}{e}} \frac{10x - 5 + \left[\frac{x}{x^2} \right]}{19x - \left[-\frac{x}{x^2} \right]} = \frac{10x - 5 + 11}{19x + 1} = \frac{10x + 6}{19x + 1} = \frac{1}{0^-} = -\infty$$



$$\lim_{x \rightarrow 1} \frac{\sin^2 x}{1 + \cos x} = \frac{(1 - \cos x)(1 + \cos x)}{(1 + \cos x)} = 1 - \cos 2x = 1 + 1 = 2$$

$$[2] = 1$$

$$\frac{\frac{2}{\sqrt{2x+3}} - \frac{3}{\sqrt{2x+4}}}{\frac{1}{\sqrt{2x}}}$$

$$= \frac{1 - \frac{3}{2}}{\frac{1}{2}} = -\frac{1}{2} \div \frac{1}{2} = -\frac{1}{1} = -1$$

$$\lim_{x \rightarrow 1} \frac{r x - \sqrt{x} + 0}{r x - \sqrt{x} + 1}, \quad \frac{r - \frac{1}{2\sqrt{x}}}{r - \frac{1}{2\sqrt{x}+1}} = \frac{r - \frac{1}{r}}{r - \frac{1}{r}} = \frac{-\frac{1}{r^2}}{\frac{0}{r}} = \frac{-1}{r} \quad \left(\frac{0}{0} \right)$$

✓ ②

$a + \sqrt{bx+c} = 0 \Rightarrow a = -c^r$

HOP $\frac{b}{r\sqrt{bx+c}} = \frac{1}{r} \rightarrow \frac{b}{r\sqrt{c}} = \frac{1}{r} \rightarrow \frac{b}{\sqrt{c}} = \frac{1}{r}$

~~$\frac{b}{r\sqrt{bx+c}} = \frac{1}{r}$~~

$\frac{-r b \times b}{r b^2} = -\frac{1}{r}$

✓ ②

$x \rightarrow -r \rightarrow -r\epsilon^+$ $\frac{r + \frac{1}{r} - rK}{\cdot} = +\infty$

$x \rightarrow -r \rightarrow -r\epsilon^-$ $\frac{r - rK}{\cdot} = +\infty$

$r - rK > 0 \Rightarrow K < r$

$r - rK < 0 \Rightarrow K > \frac{r}{r} = 1$

$[-K] = -r$

✓ ②

$\lim_{x \rightarrow \infty} \frac{b\sqrt{4\sqrt{x}} - rb}{ax - b} \xrightarrow{\frac{\infty}{\infty}} \frac{1}{1} \rightarrow \frac{1}{1} = 1$

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

HOP $\frac{\frac{b}{r\sqrt{x}}}{\frac{r\sqrt{r+\sqrt{x}}}{a}} = \frac{\frac{b}{r\sqrt{x}}}{\frac{r}{a}} = \frac{b}{r\sqrt{x}} \cdot \frac{a}{r} = \frac{a}{r\sqrt{x}} = \frac{1}{r}$

✓ ②