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• ۱۳۲۸/۲۲

۱- $\ominus$ $\Rightarrow$ $\lim_{x \rightarrow -\infty} \frac{x-5}{(x-1)^2} = -\infty$ $\Rightarrow$ $\lim_{x \rightarrow -\infty} \frac{x-5}{(x-1)^2} = -\infty$

$\frac{x-5}{(x-1)^2} \Rightarrow a = -5, b = 1 \Rightarrow a < b \Rightarrow -\infty < \infty \Rightarrow \text{منفرہ}$ ✓

۲- $\oplus$ $\Rightarrow \lim_{x \rightarrow \infty} \frac{(x-\sqrt{x})^2}{x} = \infty$ $\Rightarrow$ $\lim_{x \rightarrow \infty} \frac{(x-\sqrt{x})^2}{x} = \infty$

$a = -\sqrt{x}, b = \sqrt{x} \Rightarrow \sqrt{x} \left| \frac{\sqrt{x}}{\sqrt{x}} \right| = -1 \cdot \left[\frac{b}{a} \right]$ ✓

۳- $\Rightarrow$ $\lim_{x \rightarrow \infty} \left(\frac{1}{x} + \frac{1}{x} \right) = 0$ $\Rightarrow$ $\lim_{x \rightarrow \infty} \left(\frac{1}{x} + \frac{1}{x} \right) = 0$

$\left[\frac{1}{x} \right] = -1$ ✓

۴- $x \rightarrow \left(-\frac{1}{x} \right)^+ \Rightarrow \frac{1}{x} \Rightarrow \lim_{x \rightarrow \infty} \frac{14x - (-9)}{25x + 12} = \frac{1}{0^+} = +\infty$ ✓

۵- $\frac{x^2-2}{x^2-1} = \frac{(x-\sqrt{2})(x+\sqrt{2})}{(x-1)(x+1)} = \frac{2}{1} = 2$ $\Rightarrow \lim_{x \rightarrow \infty} \frac{x^2-2}{x^2-1} = \frac{1}{1} = 1$ ✓

۶- $\frac{(x+2)(x+1)}{x^2+9\sqrt{x}} \xrightarrow{Hosp} \frac{x+1}{\frac{1}{2\sqrt{x}}} = \frac{-9}{\frac{1}{2}} = -18$ ✓

۷- $\frac{\sqrt{x+2} - \sqrt{x-1}}{\sqrt{1-x}} \xrightarrow{\frac{0}{0}} \frac{\frac{1}{2\sqrt{x+2}} - \frac{1}{2\sqrt{x-1}}}{-\frac{1}{2\sqrt{1-x}}} = \frac{\frac{1}{2\sqrt{x+2}} - \frac{1}{2\sqrt{x-1}}}{-\frac{1}{2\sqrt{1-x}}}$

$\frac{\frac{1}{2\sqrt{x+2}} - \frac{1}{2\sqrt{x-1}}}{-\frac{1}{2\sqrt{1-x}}} = \frac{\frac{1}{2\sqrt{x+2}} - \frac{1}{2\sqrt{x-1}}}{-\frac{1}{2\sqrt{1-x}}} = -2$ ✓

۲۵

15 December 2024

S u n d a y

یکشنبه

۱۳ جمادی الثانی ۱۴۴۶

آذر

۸-

خرج = 0

کسر جابجایی

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۱۴۰۳/۹/۲۵

k = -1

$$\frac{\cos \theta}{\cos \theta} \rightarrow \frac{-1 + (1 - \frac{a n^2}{r})}{r - n^2} = \frac{-\frac{a}{r} n^2}{-n^2} = \frac{a}{r} = 3 \Rightarrow a = 9 \Rightarrow \frac{a}{k} = -9$$

$$9- \text{نیز: } \frac{r \sqrt{x-2a}}{(\sqrt{x-2a})(\sqrt{x+2a})} + \frac{r(\sqrt{x-2a})}{(\sqrt{x-2a})(\sqrt{x+2a})} \text{ I}$$

$$\frac{r(x-2a)}{(\sqrt{x-2a})(\sqrt{x+2a})(\sqrt{x+2a})} = \frac{r \sqrt{x-2a}}{(\sqrt{x+2a})(\sqrt{x+2a})} = 0 \text{ II}$$

$$\text{I} \cap \text{II} \rightarrow \frac{r}{\sqrt{x+2a}} + 0 = \frac{r}{\sqrt{4a}} \checkmark$$

$$10- x \begin{cases} -1^+ \rightarrow \frac{1 - (-k)}{0^-} = \frac{1+k}{0^-} = -\infty \Rightarrow 1+k > 0 \Rightarrow k > -1 \end{cases}$$

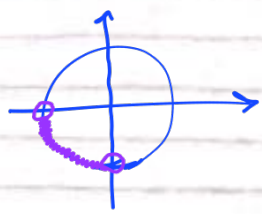
$$\begin{cases} -1^- \rightarrow \frac{1 - (-2k)}{0^+} = \frac{1+2k}{0^+} = -\infty \Rightarrow 1+2k < 0 \Rightarrow k < -\frac{1}{2} \end{cases}$$

$$-1 < k < -\frac{1}{2}$$

$$\text{نیز: } \text{Man} \rightarrow (-\pi, 0)$$

در نواحی آردی

$$-1 < k < -\frac{1}{2} \rightarrow \begin{cases} -\pi < k\pi < -\frac{\pi}{2} \\ -1 < \cos k\pi < 0 \end{cases}$$



نواحی