

☆ ۲. افندنی

۱) $\Rightarrow x = -2 \rightarrow$ ① $x > -2 \Rightarrow \frac{x-1}{x} (x \rightarrow 2(1) + a[\frac{x+2}{x}]) \Rightarrow [2] \rightarrow$ مدرسات

$\Rightarrow x < -2 \Rightarrow \frac{x-1}{x} > 2 \rightarrow [2] = 2 \Rightarrow 2(x) + a[\frac{x+2}{x}] \rightarrow [2-1] \rightarrow$ مدرسات $\begin{cases} \varepsilon - a = 2 \rightarrow a = 2 \\ \rightarrow [\frac{a}{x}] = [\frac{2}{x}] = 0 \end{cases}$

۲) $\lim_{n \rightarrow (\frac{1}{2})^-} [x \sin n - 1] \Rightarrow x(\frac{1}{2}) - 1 \Rightarrow 0^- \rightarrow [0^-] = (-1)$

۳) $\lim_{n \rightarrow -\frac{1}{2}} [n^2 - n] \Rightarrow 1(-\frac{1}{2}) + \frac{1}{2} \rightarrow -1 + \frac{1}{2} = -\frac{1}{2} \Rightarrow [-\frac{1}{2}] = (-1)$

$-\frac{1}{2}$ (سیکس)

۴) $\Rightarrow \lim_{n \rightarrow (-\frac{1}{2})} \frac{10n - 5 + 11}{14n - 1} \Rightarrow \frac{1}{0^-} = -\infty$

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

H.P. $b \left(\frac{\frac{1}{n^2 \sqrt{n}}}{\frac{1}{\sqrt{1+n^2}}} \right)$
 $b \left(\frac{\frac{1}{n^2}}{\frac{1}{n}} \right) = b \left(\frac{1}{n} \right) = b \left(\frac{1}{na} \right)$
 $na - b = 0 \rightarrow b = na$
 $\frac{na \times 1}{1 \times na} = \left(\frac{1}{1} \right)$

۶) $\Rightarrow$ H.O.P. $\Rightarrow \frac{\frac{1}{x} - \frac{1}{x}}{\frac{1}{x} - \frac{1}{x}} \Rightarrow \frac{\frac{1}{x} - \frac{1}{x}}{\frac{1}{x}} = \frac{0}{\frac{1}{x}} = 0$

۷) $\Rightarrow$ H.P. $\rightarrow x = \frac{y}{\sqrt{y}} \rightarrow \frac{y - \frac{y}{\sqrt{y}}}{y - \frac{y}{\sqrt{y+1}}} \Rightarrow \frac{\frac{y}{\sqrt{y}} - \frac{y}{\sqrt{y}}}{\frac{y}{\sqrt{y}} - \frac{y}{\sqrt{y+1}}} \Rightarrow \frac{-\frac{1}{\sqrt{y}}}{\frac{1}{\sqrt{y}} - \frac{1}{\sqrt{y+1}}} \Rightarrow \frac{-1}{\sqrt{y}} = \frac{-1}{\infty} = 0$

۸) $\lim_{n \rightarrow \infty} \frac{a + \sqrt{bn+c}}{n} = \frac{1}{5} \Rightarrow a + \sqrt{c} = 0 \rightarrow a = -\sqrt{c}$
 $\rightarrow$ H.P. $\Rightarrow \frac{b}{\sqrt{bn+c}} = \frac{1}{5} \Rightarrow \frac{b}{x\sqrt{c}} = \frac{1}{5} \rightarrow x\sqrt{c} = 5b \rightarrow b = \frac{\sqrt{c}}{5}$
 $\frac{-\sqrt{c} \times \sqrt{c}}{5 \times \sqrt{c}} = \left(-\frac{1}{5} \right)$

۹) $\lim_{n \rightarrow -\infty} \rightarrow (n > -\infty) \rightarrow \frac{\varepsilon + K[\frac{-\varepsilon n^2}{n}]}{0^+} \Rightarrow \frac{\varepsilon - \varepsilon K}{0^+} = +\infty \Rightarrow \varepsilon - \varepsilon K > 0$
 $\rightarrow n < -\infty \Rightarrow \frac{\varepsilon - \varepsilon K}{0^-} = +\infty \Rightarrow \varepsilon - \varepsilon K < 0$
 $\frac{n}{n} \rightarrow 1$
 $\begin{cases} \varepsilon - \varepsilon K > 0 \\ \varepsilon - \varepsilon K < 0 \end{cases} \Rightarrow \begin{cases} K < 1 \\ K > 1 \end{cases}$
 $[K] = 1$