

$$(1) \lim_{x \rightarrow 1^+} \frac{2x+1}{x+1} = \frac{2+1}{1+1} = \frac{3}{2} = 1.5$$

$$(ب) \lim_{x \rightarrow 1^+} \frac{2x+1}{x+1} = 1.5$$

$$(ج) \lim_{x \rightarrow 1^+} \frac{2x+1}{x+1} = 1.5$$

$$(د) \lim_{x \rightarrow 0} \frac{2x+1}{[x^2]} = \frac{1}{0} = \infty$$

$\Rightarrow$ (خبر ندارد)

$$(1) \lim_{x \rightarrow 1^+} f(x) - 2 = f(1) - 2 = 1 - 2 = -1$$

$$(ب) \lim_{x \rightarrow 1^+} f(x) - 2 = [1] - 2 = -1$$

$$(ج) \lim_{x \rightarrow 1^+} f(x) - 2 = [1] - 2 = -1$$

$$(1) \lim_{x \rightarrow 1^+} \frac{3x+1}{x} = \frac{3+1}{1} = \frac{4}{1} = 4$$

$$(ب) \lim_{x \rightarrow 1^+} \left[\frac{3x+1}{x} \right] = \left[\frac{4}{1} \right] = 4$$

$$(ج) \lim_{x \rightarrow 1^+} \left[\frac{3x+1}{x} \right] = [4] = 4$$

$$(د) \lim_{x \rightarrow 1^+} \left[\frac{3x+1}{x} \right] = [4] = 4$$

$$(1) \lim_{x \rightarrow 1} \frac{x-1}{(x-1)(x-2)} = \lim_{x \rightarrow 1} \frac{1}{x-2} = \frac{1}{1-2} = \frac{1}{-1} = -1$$

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

خبر ندارد!

$$(ب) \lim_{x \rightarrow 1} \frac{x-1}{(x-1)^2} = \lim_{x \rightarrow 1} \frac{1}{x-1} = \frac{1}{0} = \infty$$

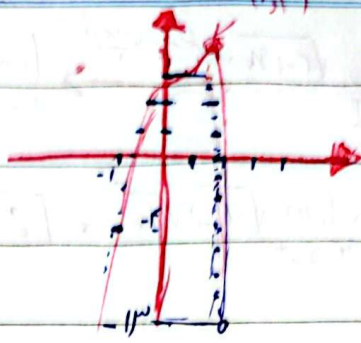
Scbo

Date.....

$$\text{الف) } \lim_{n \rightarrow 1} [4n^3 - 3n^2 + 3] = 3$$

$$\text{ب) } \lim_{n \rightarrow 0} [4n^3 - 3n^2 + 3] = 3$$

$$\lim_{n \rightarrow 0} [4n^3 - 3n^2 + 3] = 3$$



$$\text{الف) } \lim_{n \rightarrow +\infty} [-3n] - [0n] = \infty + 0 = \infty \quad \lim_{n \rightarrow -\infty} [-3n] - [0n] = \infty$$

$$\lim_{n \rightarrow +\infty} [-3n] - [0n] = 9 + 1 = 10 \quad \lim_{n \rightarrow -\infty} [-3n] - [0n] = 9 + 1 = 10$$

$$\text{ب) } \lim_{n \rightarrow (-\frac{1}{2})^-} \left[\frac{-1}{2^n} \right] = \left[\frac{-1}{(\frac{1}{2})^+} \right] = \left[-15^+ \right] = -15$$

$$\text{الف) } \Rightarrow \lim_{n \rightarrow 2^+} \frac{n^3 - 1}{n^2 - 2} = \frac{(n-1)(n^2 + n + 1)}{(n-2)(n+2)} = \frac{n^2 + n + 1}{n+2} = \infty$$

$$\Rightarrow \lim_{n \rightarrow 2^-} \frac{n^3 - 1}{n^2 - 2} = \frac{-(n-2)(n^2 + n + 1)}{(n-2)(n+2)} = -\frac{n^2 + n + 1}{n+2} = -\infty$$

$$\text{ب) } \lim_{n \rightarrow \pi} \frac{|\sin n|}{\sin 2n}$$

$$\Rightarrow \lim_{n \rightarrow \pi} \frac{|\sin n|}{\sin 2n \cos n} = \frac{-\sin n}{\sin 2n \cos n} = \frac{-1}{2 \cos n} = \frac{-1}{-2} = \frac{1}{2}$$

$$\text{ج) } \lim_{n \rightarrow \pi} \frac{|\sin n|}{\sin 2n} = \frac{1}{2}$$

$$\Rightarrow \lim_{n \rightarrow \pi} \frac{|\sin n|}{\sin 2n \cos n} = \frac{\sin n}{\sin 2n \cos n} = \frac{1}{2 \cos n} = \frac{1}{-2} = -\frac{1}{2}$$

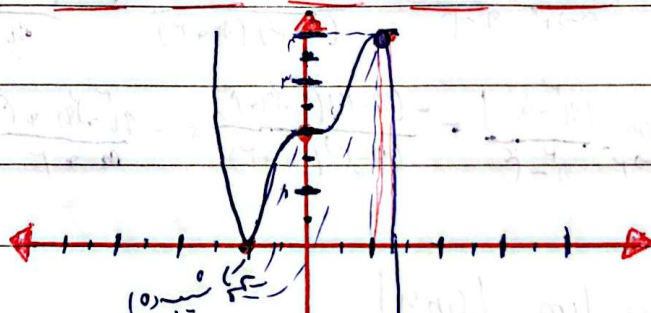
(الف) $\lim_{n \rightarrow \frac{2\pi}{p}} \sqrt{c, n} \xrightarrow{\text{آرودین خالق زاده}} \lim_{n \rightarrow \frac{2\pi}{p}} \sqrt{c, n} = 0$ $\rightarrow$ حرارت $\times$ حرجب $\times$ حرجب دارد! (۸)

(ب) $\lim_{n \rightarrow 0^+} \sqrt{n-2\sqrt{n}} = \sqrt{0-2\sqrt{0}} = 0$ $\rightarrow$ حرارت ندارد $\times$ حرجب ندارد! $\times$ زیر ادا کمال نمی تواند باشد $\times$ حرجب ندارد $\times$ $\lim_{n \rightarrow 0} \sqrt{n-2\sqrt{n}}$

(الف) $\lim_{n \rightarrow 0^+} \frac{(-1)^{\lfloor \sin n \rfloor}}{n^2 - n^2} = \frac{-1}{0^-} = \frac{+1}{0^-} = -\infty$ (۹)

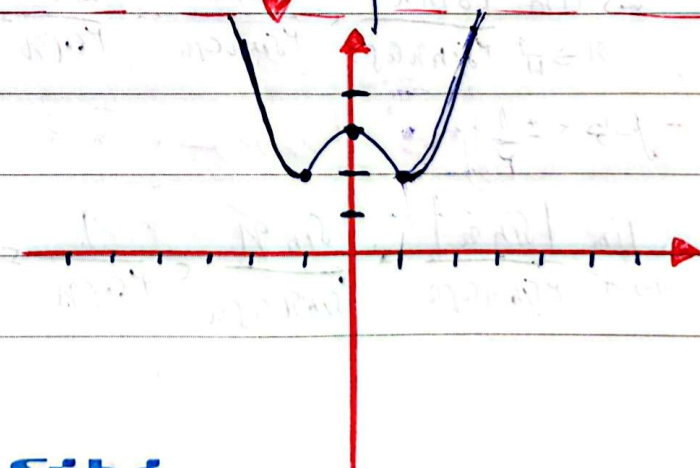
(ب) $\lim_{n \rightarrow 2^+} \frac{n^2 - [n^2]}{n - [n]} = \frac{n^2 - 4}{n - 2} = \frac{(n-2)(n+2)}{(n-2)} = n+2 = 4$ $\rightarrow$ حرجب ندارد! $\rightarrow$ $\lim_{n \rightarrow 2^+} \frac{n^2 - [n^2]}{n - [n]} = \frac{n^2 - 3}{n - 1} = \frac{4-3}{2-1} = 1$

(الف) $y = 4n^3 - 3n^2 + 1$ $\rightarrow$ $H.O \rightarrow 10n^3 - 10n^2 \rightarrow n \rightarrow 0 \Rightarrow y = 0$ $\rightarrow$ شیب (نقطه) $= 0$



(ب) $y = 4n^3 - 3n^2 + 3$ $\rightarrow$ $H.O \rightarrow 4n^3 - 3n^2$

(د) $\{ -1, 0, 1 \}$ شیب (نقطه)



Scubö

Date.....