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نام و نام خانوادگی علی محمدی پاسخنامه تشریحی تکلیف شماره کلاس

الف) $\frac{2(x)+5}{x+1} = 2$

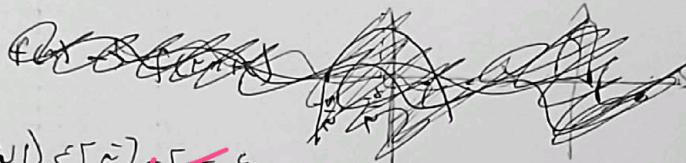
ب) $\frac{2(x)+5}{x+1} = 2$

ج) $\frac{2(x)+5}{x+1} = 2$

د) $\frac{2(x)+5}{x+1} = \frac{5}{0} = \infty$

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الف) $\lim_{x \rightarrow 2} [x] = 2$

ب) $\lim_{x \rightarrow 2} [x] = 2$

ج) $\lim_{x \rightarrow 2} [x] = 2$

د) $\lim_{x \rightarrow 2} [x] = 2$

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الف) $\frac{3[x]+1}{x} = \frac{4}{5}$

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

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

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

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الف) $\lim_{n \rightarrow 1} \frac{n-5}{(n-5)(n-1)} = \frac{1}{n-1} \begin{cases} \rightarrow +\infty \\ \rightarrow -\infty \end{cases}$

ب) $\lim_{n \rightarrow 5} \frac{n-5}{(n-5)} = \begin{cases} \rightarrow +\infty \\ \rightarrow -\infty \end{cases}$

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الف) $\begin{cases} -x^+ \rightarrow 1 - (-4) = 2 \\ -x^- \rightarrow 1 - (-16) = 2 \end{cases}$

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

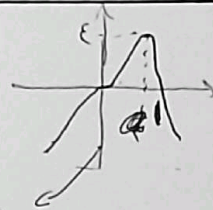
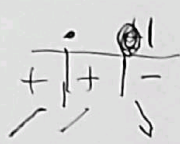
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$$a) |x^r - 1x^w| = |x^r(1 - x)|$$

$$1^+ \rightarrow [x^-] = x$$

$$1^- \rightarrow [x^+] = x$$



$$0^+ \rightarrow [x^+] = x$$

$$0^- \rightarrow [x^-] = x$$

$$b) |2x^r - 1x^w| = |2x^r(1 - x)|$$

$$a) x^+ \rightarrow \frac{x^r - 1}{x^r - x} = \frac{x^r}{x} = x$$

$$x^- \rightarrow \frac{-x^r + 1}{x^r - x} = \frac{-x^r}{x} = -x$$

$$b) x^+ \rightarrow \frac{-\sin x}{\sin x} = -1$$

$$x^- \rightarrow \frac{\sin x}{\sin x} = 1$$

$$a) \frac{x^+}{x} \rightarrow \sqrt{x}$$

$$\frac{x^-}{x} \rightarrow \sqrt{x} \rightarrow \text{نقطه}$$

$$b) x^+ \rightarrow \sqrt{x - 2\sqrt{x}} \rightarrow \text{نقطه}$$

$$x^- \rightarrow \sqrt{x - 2\sqrt{x}} \rightarrow \text{نقطه}$$

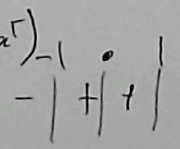
$$a) \frac{(-1)^{[x]}}{x^r - x^w} = \frac{1}{x^r - x^w} = \frac{1}{x^r} = +\infty$$

$$\frac{1}{x^r(n-1)} = \frac{1}{0^-} = -\infty$$

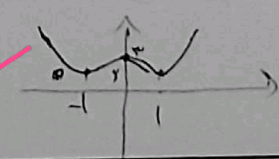
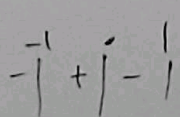
$$b) x^+ \rightarrow \frac{x^r - x}{x^r - x} = \frac{0}{0} = \text{نقطه}$$

$$x^- \rightarrow \frac{x^r - x}{x^r - x} = 1$$

$$a) |x^r - 1x^w| \rightarrow |x^r(1 - x)|$$



$$b) x^r - x \rightarrow x^n(x^r - 1)$$



$$\lim_{n \rightarrow -3} [-3n] - [a_n] \rightarrow \lim_{n \rightarrow -3^+} [-3n] - [a_n] = 1 - (-18) = 19$$

$$\hookrightarrow \lim_{n \rightarrow -3^-} [-3n] - [a_n] = 9 - (-14) = 23$$

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ب) $x < -\frac{1}{4} \rightarrow x^2 > \frac{1}{16} \rightarrow -x^2 < -\frac{1}{16} \rightarrow -\frac{1}{x^2} > -16$

$$\lim_{x \rightarrow -\frac{1}{4}^-} \left[-\frac{1}{x^2} \right] = -16$$

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