

آبان

۱- (الف) $\frac{4+5}{3} = 3$ ✓ (ب) $\frac{4+5}{3} = 3$ ✓

(ج) $\frac{9}{3} = 3$ ✓ (د) $n^2 = 0^+ \Rightarrow [n^2] = 0$ ✓ (۲)

۲- (الف) $4(2) - 2 = 6$ ✓ (ب) $[12 - 2] = 10$ ✓ (۲)

(ج) 10 ✓ (د) 10 ✓

۳- (الف) $\frac{7}{2} + 1 = \frac{9}{2}$ ✓ (ب) $[\frac{7}{2}] = 3$ ✓ (۲)

(ج) 5 ✓ (د) 5 ✓

۴- (الف) $\frac{1-5}{0^+} = +\infty$ ✓

$\frac{1-5}{0^+} = -\infty$ ✓ (۲)

(ب) $\frac{3-4}{0^+} = -\infty$ ✓

۵- (الف) $3^+ \rightarrow [9^-] - [-15^+] = 24$ ✓ (ب) $3^+ \rightarrow [9^+] - [-15^-] = 24$ ✓ (۲)

(ج) $[-14^+] = -14$ ✓

۶- (الف) $-12n^2 + 12n^2 = 0$ ✓ (۱)

$\lim_{n \rightarrow 1^+} f_n = \lim_{n \rightarrow 1^-} f_n = 2 \Rightarrow [2^-] = 1$ ✓ (۲)

(ب) $\lim_{n \rightarrow 0^+} f_n = 0^+ \Rightarrow [0^+] = 0$ ✓ (۲)

$y = 12n^3 - 12n^2 + 3 \rightarrow y' = 36n^2 - 24n$
 $y' = 0 \rightarrow 12n^2(1-2n) = 0 \rightarrow \begin{cases} n=0 \\ n=1 \end{cases}$

$\lim_{n \rightarrow 0^-} f_n = 0^- \Rightarrow [0^-] = -1$ ✓
 $\lim_{n \rightarrow 0^+} [12n^3 - 12n^2 + 3] = \begin{cases} \lim_{n \rightarrow 0^+} [3] = 3 \\ \lim_{n \rightarrow 0^-} [3] = 3 \end{cases}$

۱۴۰۳/۸/۲۳

۱۴۴۶ جمادی الاولی ۱۱

چهارشنبه
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۷-
$$r^+ \rightarrow \frac{(n-r)(n^2+rn+\varepsilon)}{(n-r)(n+r)} = 3$$

$$r^- \rightarrow -\frac{(n-r)(n^2+rn+\varepsilon)}{(n-r)(n+r)} = -3$$

۸-
$$r^+ \rightarrow \frac{-\frac{2}{2r}}{\frac{2}{2r}} = \frac{-1}{1} = -1$$

$$r^- \rightarrow \frac{\frac{2}{2r}}{\frac{2}{2r}} = \frac{1}{1} = 1$$

۹-
$$r^+ \rightarrow 0$$

$$r^- \rightarrow \infty$$

۱۰-
$$r^+ \rightarrow \frac{1}{p} - \frac{1}{p} = 0$$

$$r^- \rightarrow \frac{1}{p} - \frac{1}{p} = 0$$

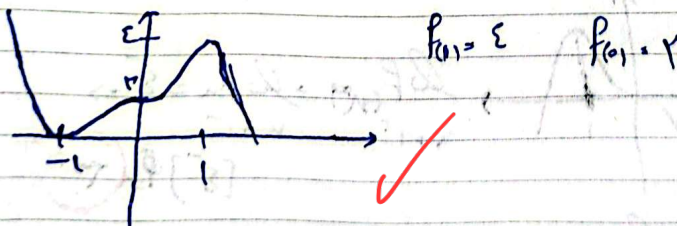
$$\rightarrow \phi$$

۱۱-
$$[2n] = [e^+], 0 \rightarrow \frac{-1}{n^2-n^2} = \frac{0}{0} = \frac{1}{0} = \infty$$

۱۲-
$$r^+ \rightarrow \frac{n^2-\varepsilon}{n-1} = n+1 = 2$$

$$r^- \rightarrow \frac{n^2-\varepsilon}{n-1} = 1$$

۱۳-
$$f'_n = -10n^2 + 10n \rightarrow \begin{pmatrix} 0 \\ 0 \end{pmatrix} \rightarrow \frac{1}{1} - \frac{1}{1} = 0$$



۱۴-
$$f'_n = \varepsilon n^2 - \varepsilon n \rightarrow \begin{pmatrix} 0 \\ 0 \end{pmatrix}$$

$$f_1 = 2$$

$$f_{-1} = 2$$

$$f_0 = 0$$

