

نام و نام خانوادگی سید علی محمد پاسخنامه تشریحی تکلیف شماره ۱۸۰ کلاس دوره اول متوسطه B

۱) $\lim_{n \rightarrow 2} \frac{2n+5}{n+1} = \frac{4+5}{2} = \frac{9}{2}$ ۲) $\lim_{n \rightarrow 2} \frac{2n+5}{n+1} = \frac{9}{2}$
 ۱) $\lim_{n \rightarrow 2} \frac{2n+5}{n+1} = \frac{9}{2} = 4.5$ ۲) $\lim_{n \rightarrow 2} \frac{2n+5}{n+1} = \frac{9}{2}$
 ۱) $\lim_{n \rightarrow 2} \frac{2n+5}{n+1} = \frac{9}{2}$ ۲) $\lim_{n \rightarrow 2} \frac{2n+5}{n+1} = \frac{9}{2}$

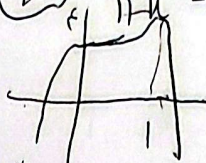
۱) $\lim_{n \rightarrow 2} [f(n)] = 9$ ۲) $\lim_{n \rightarrow 2} [f(n)] = 10$
 ۱) $\lim_{n \rightarrow 2} [f(n)] = 9$ ۲) $\lim_{n \rightarrow 2} [f(n)] = 10$
 ۱) $\lim_{n \rightarrow 2} [f(n)] = 9$ ۲) $\lim_{n \rightarrow 2} [f(n)] = 10$

۱) $\lim_{n \rightarrow 2} \frac{2n+5}{n+1} = \frac{9}{2}$ ۲) $\lim_{n \rightarrow 2} \frac{2n+5}{n+1} = \frac{9}{2}$
 ۱) $\lim_{n \rightarrow 2} \frac{2n+5}{n+1} = \frac{9}{2}$ ۲) $\lim_{n \rightarrow 2} \frac{2n+5}{n+1} = \frac{9}{2}$
 ۱) $\lim_{n \rightarrow 2} \frac{2n+5}{n+1} = \frac{9}{2}$ ۲) $\lim_{n \rightarrow 2} \frac{2n+5}{n+1} = \frac{9}{2}$

۱) $\lim_{n \rightarrow 2} \frac{2n+5}{n+1} = \frac{9}{2}$ ۲) $\lim_{n \rightarrow 2} \frac{2n+5}{n+1} = \frac{9}{2}$
 ۱) $\lim_{n \rightarrow 2} \frac{2n+5}{n+1} = \frac{9}{2}$ ۲) $\lim_{n \rightarrow 2} \frac{2n+5}{n+1} = \frac{9}{2}$
 ۱) $\lim_{n \rightarrow 2} \frac{2n+5}{n+1} = \frac{9}{2}$ ۲) $\lim_{n \rightarrow 2} \frac{2n+5}{n+1} = \frac{9}{2}$

۱) $\lim_{n \rightarrow 2} [f(n)] = 9$ ۲) $\lim_{n \rightarrow 2} [f(n)] = 10$
 ۱) $\lim_{n \rightarrow 2} [f(n)] = 9$ ۲) $\lim_{n \rightarrow 2} [f(n)] = 10$
 ۱) $\lim_{n \rightarrow 2} [f(n)] = 9$ ۲) $\lim_{n \rightarrow 2} [f(n)] = 10$

$$\text{ب) } \lim_{n \rightarrow 1} [n^r - n^{r+1}] = \textcircled{0} \quad \text{حيث } 1^r - 1^{r+1} = 1 - 1 = 0$$



$$\text{ج) } \lim_{n \rightarrow 0} [n^r - n^{r+1}] = \begin{matrix} \rightarrow 0^+ = r \\ \rightarrow 0^- = -r \end{matrix}$$

$$\text{د) } \lim_{n \rightarrow r} \frac{|n^r - 1|}{n^r - 1} \quad \begin{matrix} \xrightarrow{r^+} \frac{n^r - 1}{n^r - 1} = \frac{(n-1)(n^{r-1} + n^{r-2} + \dots + 1)}{(n-1)(n^{r-1} + \dots + 1)} = \frac{1}{1} = 1 \\ \xrightarrow{r^-} \frac{-n^r + 1}{n^r - 1} = \frac{-(n-1)(n^{r-1} + \dots + 1)}{(n-1)(n^{r-1} + \dots + 1)} = -1 \end{matrix}$$

$$\text{هـ) } \lim_{n \rightarrow 0} \frac{|\sin n|}{\sin n} \quad \begin{matrix} \xrightarrow{0^+} \frac{\sin n}{\sin n} = 1 \\ \xrightarrow{0^-} \frac{-\sin n}{\sin n} = -1 \end{matrix}$$

$$\text{و) } \lim_{n \rightarrow \frac{\pi}{2}} \sqrt{\cos n} \quad \begin{matrix} \xrightarrow{\frac{\pi}{2}^+} 0 \\ \xrightarrow{\frac{\pi}{2}^-} 0 \end{matrix}$$

$$\text{ز) } \lim_{n \rightarrow 0} \sqrt{n - 2\sqrt{n}} \quad \begin{matrix} \xrightarrow{n \rightarrow 0^+} 0 \\ \xrightarrow{n \rightarrow 0^-} \text{تعريف غير موجود} \end{matrix}$$

$$\text{ح) } \lim_{n \rightarrow \infty} \frac{(-1)^{\lfloor \sin n \rfloor}}{n^r - n^r} = \frac{1}{n^r(n-1)} = \frac{1}{0} = -\infty$$

$$\text{ط) } \lim_{n \rightarrow r} \frac{n^r - [n^r]}{n - [n]} \quad \begin{matrix} \xrightarrow{n \rightarrow r^+} \frac{n^r - r}{n - r} = \frac{r^r - r}{r - r} = \frac{r^r - r}{0} = \infty \\ \xrightarrow{n \rightarrow r^-} \frac{n^r - r}{n - 1} = \frac{r^r - r}{r - 1} = \frac{1}{1} = 1 \end{matrix}$$

$$y = n^r - r n^{r-1} + r \quad y' = r n^{r-1} - (r-1) n^{r-2} = r n^{r-2} (n - (r-1))$$

$$y = n^r - r n^{r-1} + r \quad y' = r n^{r-2} (n - (r-1))$$

$$y = n^r - r n^{r-1} + r = n^{r-1} (n - r + 1)$$

نقاط حرجية: $n = 0, 1, r$

نقاط تقاطع المحاور: $n = 0, r$