

الف) $\lim_{n \rightarrow 2^+} \varepsilon n - 3 \rightarrow f(2) - 3 = 5$ $\Rightarrow \lim_{n \rightarrow 2^-} \varepsilon n - 3 \rightarrow f(2) - 3 = 5$ ۱- ۵

الف) $[2^+] = 2 \rightarrow f(2) - 3 = 5$ $\Rightarrow [2^-] = 1 \rightarrow f(1) - 3 = 1$ ۲- ۵

الف) $f(2^+) - 3 = [5^+] = 5$ $\Rightarrow f(2^-) - 3 = [5^-] = 4$ ۳- ۵

الف) $f(2^+) - 3 = \delta^+ \rightarrow \rho \cdot \delta^+ = [5] = 5$ ۴- ۵
 $\Rightarrow f(2^-) - 3 = \delta^- \rightarrow \rho \cdot \delta^- = [5] = 5$

الف) $\left. \begin{array}{l} \lim_{x \rightarrow 0^+} \frac{f(x) - 3}{0^+} = +\infty \\ \lim_{x \rightarrow 0^-} \frac{9}{0^-} = -\infty \end{array} \right\} \Rightarrow \left. \begin{array}{l} \lim_{x \rightarrow 0^+} \frac{9}{(0^+)^2} = +\infty \\ \lim_{x \rightarrow 0^-} \frac{9}{(0^-)^2} = +\infty \end{array} \right\}$ ۵- ۵

الف) $\left. \begin{array}{l} \lim_{x \rightarrow 0^+} \frac{9}{0^+} = +\infty \\ \lim_{x \rightarrow 0^-} \frac{9}{x} \rightarrow \text{X} \end{array} \right\} \Rightarrow \left. \begin{array}{l} \lim_{x \rightarrow 0^+} \frac{9}{0^+} = +\infty \\ \lim_{x \rightarrow 0^-} \frac{9}{\text{X}} = \text{X} \end{array} \right\}$ ۶- ۵
 $x^2 - 2x + 3 = (x-2)(x+1)$
 $\frac{1}{+ \quad - \quad - \quad +}$

الف) $\left. \begin{array}{l} \lim_{x \rightarrow 0^+} \frac{9}{0^+} = -\infty \\ \lim_{x \rightarrow 0^-} \frac{9}{0^+} = +\infty \end{array} \right\}$ ۷- ۵
 $(x-2)(x-3) = x^2 - 5x + 6$
 $\frac{3 \quad 2}{+ \quad - \quad - \quad +}$

الف) $\left. \begin{array}{l} \lim_{x \rightarrow 0^+} \frac{9}{[0^+]} = \frac{9}{0} \rightarrow \text{X} \\ \lim_{x \rightarrow 0^-} \frac{9}{[0^-]} = \frac{9}{-1} = -9 \end{array} \right\}$

(الف) $x^+ [9^+] + [-9^-] = 9 - 9 = \boxed{0}$ -1

$x^- [9^-] + [-9^+] = 9 - 9 = \boxed{0}$

(ب) $-9^+ [13^-] + [-13^+] = 13 - 13 = \boxed{0}$

$-9^- [13^+] + [-13^-] = 13 - 13 = \boxed{0}$

(الف) $x^+ \quad x=2, 1 \rightarrow [1, 1, 1, 1, 1] = [-1^+] = \boxed{-1}$ -9

$x^- \quad x=1, 9 \rightarrow [1, 1, 1, 1, 1] = [-1^+] = \boxed{-1}$

(ب) $x^+ \quad x=2, 1 \rightarrow [1, 1, 1, 1, 1] = [9^-] = \boxed{9}$

$x^- \quad x=2, 9 \rightarrow [1, 1, 1, 1, 1] = [9^-] = \boxed{9}$

(الف) $x^+ \quad \frac{1 \cdot x}{(x-1)(x-1)} = \frac{1}{1} = \boxed{1}$ -10

$x^- \quad \frac{1 \cdot x - 1}{(x-1)(x-1)} = \frac{-1}{1} = \boxed{-1}$

(ب) $x^+ \quad [n] = 1 \rightarrow \frac{x-1}{(x-1)(x+1)} = \boxed{\frac{1}{x+1}}$

$x^- \quad [n] = 0 \rightarrow \frac{x}{x^2-1} = \frac{1}{x-1} = \boxed{\infty}$ -11