

الف)  $\lim_{x \rightarrow 2^+} f(x-2) = 5$

ب)  $\lim_{x \rightarrow 2^-} \Sigma(x-2) = 5$  (۱)

الف)  $\lim_{x \rightarrow 2^+} f[x] - 2 = 1 - 2 = -1$  (۵)

ب)  $\lim_{x \rightarrow 2^-} \Sigma[x] - 2 = 2 - 2 = 0$  (۲)

الف)  $\lim_{x \rightarrow 2^+} [\Sigma(x-2)] = 5$   
/ 5

ب)  $\lim_{x \rightarrow 2^-} [\Sigma(x-2)] = 4$   
/ 5 (۳)

الف)  $\left[ \lim_{x \rightarrow 2^+} \Sigma(x-2) \right] = 5$

ب)  $\left[ \lim_{x \rightarrow 2^-} \Sigma(x-2) \right] = 5$  (۴)

الف)  $\lim_{x \rightarrow 2} \frac{\Sigma(x-2)}{x-2} = \begin{matrix} x^+ \rightarrow \frac{9}{0^+} = +\infty \\ x^- \rightarrow \frac{9}{0^-} = -\infty \end{matrix}$

ب)  $\lim_{x \rightarrow 2} \frac{\Sigma(x-2)}{(x-2)^2} = \begin{matrix} x^+ \rightarrow \frac{9}{0^+} = +\infty \\ x^- \rightarrow \frac{9}{0^+} = +\infty \end{matrix}$  (۵)

الف)  $\lim_{x \rightarrow 2} \frac{\Sigma(x-2)}{\sqrt{x-2}} = \begin{matrix} x^+ \rightarrow \frac{9}{\sqrt{0^+}} = +\infty \\ x^- \rightarrow \frac{9}{\sqrt{0^-}} = \text{تن} \end{matrix}$

ب)  $\lim_{x \rightarrow 2} \frac{f(x-2)}{\sqrt{x-\Sigma(x+2)}} = \begin{matrix} x^+ \rightarrow \frac{9}{\sqrt{0^+}} = +\infty \\ x^- \rightarrow \frac{9}{\sqrt{0^-}} = \text{تن} \end{matrix}$   
 $\frac{1}{2} \quad \frac{2}{2}$   
 $\frac{1}{+1} \quad \frac{2}{-1}$

الف)  $\lim_{x \rightarrow 2} \frac{f(x-2)}{x^2 - 7x + 12} = \begin{matrix} x^+ \rightarrow \frac{9}{0^-} = -\infty \\ x^- \rightarrow \frac{9}{0^+} = +\infty \end{matrix}$   
 $\frac{2}{2} \quad \frac{2}{2}$   
 $\frac{1}{+1} \quad \frac{2}{-1}$

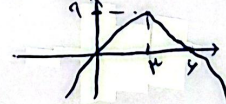
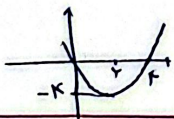
ب)  $\lim_{x \rightarrow 2} \frac{\Sigma(x-2)}{[x-2]} = \begin{matrix} x^+ \rightarrow \frac{9}{0^+} = \text{تن} \\ x^- \rightarrow \frac{9}{-1} = -9 \end{matrix}$  (۷)

الف)  $\lim_{x \rightarrow 2} [2x] + [-2x] = \begin{matrix} x^+ \rightarrow 4 + (-4) = 0 \\ x^- \rightarrow 4 + (-4) = 0 \end{matrix}$

ب)  $\lim_{x \rightarrow -2} [-2x] + [2x] = \begin{matrix} x^+ \rightarrow 4 + (-4) = 0 \\ x^- \rightarrow 4 + (-4) = 0 \end{matrix}$

الف)  $\lim_{x \rightarrow 2} [x^2 - 2x] = \begin{matrix} x^+ \rightarrow [4 - 4] = 0 \\ x^- \rightarrow [4 - 4] = 0 \end{matrix}$

ب)  $\lim_{x \rightarrow 2} [4x - x^2] = \begin{matrix} x^+ \rightarrow [8 - 4] = 4 \\ x^- \rightarrow [8 - 4] = 4 \end{matrix}$



الف)  $\lim_{x \rightarrow 2} \frac{|x-2|}{x^2 - 3x + 2} = \begin{matrix} x^+ \rightarrow \frac{1}{(1)(1-2)} = -1 \\ x^- \rightarrow \frac{-1}{(1)(1-2)} = 1 \end{matrix}$

ب)  $\lim_{x \rightarrow 1} \frac{x - [x]}{x^2 - 1} = \begin{matrix} x^+ \rightarrow \frac{1-1}{(1-1)(1+1)} = \frac{0}{0} \\ x^- \rightarrow \frac{1-1}{(1-1)(1+1)} = \frac{0}{0} \end{matrix}$   
 $\frac{1}{2}$   
 $\frac{1}{0^-} = -\infty$