

الف) $\lim_{x \rightarrow 2^+} (2x - 4) = \omega$ ب) $\lim_{x \rightarrow 2^-} (2x - 4) = \omega$ ①

الف) $\lim_{x \rightarrow 2^+} f(x) - 4 = f(2) - 4 = \omega$ ب) $\lim_{x \rightarrow 2^-} f(x) - 4 = f(2) - 4 = \omega$ ②

الف) $\lim_{x \rightarrow 2^+} [2x - 4] = [\omega] = \omega$ ب) $\lim_{x \rightarrow 2^-} [2x - 4] = [\omega] = \omega$ ③

الف) $[\lim_{x \rightarrow 2^+} (2x - 4)] = \omega$ ب) $[\lim_{x \rightarrow 2^-} (2x - 4)] = \omega$ ④

الف) $\lim_{x \rightarrow 2^+} \frac{2x - 4}{x - 2}$ (مركبة) $\rightarrow \mu^+ : \frac{0}{0^+} = +\infty$ ⑤

$\rightarrow \mu^- : \frac{0}{0^-} = -\infty$

ب) $\lim_{x \rightarrow 2^+} \frac{2x - 4}{(x - 2)^2} \rightarrow \mu^+ : \frac{0}{0^+} = +\infty$

$\rightarrow \mu^- : \frac{0}{0^+} = +\infty$

الف) $\lim_{x \rightarrow 2^+} \frac{2x - 4}{\sqrt{x - 2}} \rightarrow \mu^+ : \frac{0}{\sqrt{0^+}} = +\infty$ ⑥

$\rightarrow \mu^- : \frac{0}{\sqrt{0^-}}$ (غير معرف) تعريفه

ب) $\lim_{x \rightarrow 3} \frac{x^2 - 9}{\sqrt{x^2 - 5x + 6}}$ $\rightarrow x^+ : \frac{9}{\sqrt{0^+}} \rightarrow +\infty$ $\frac{1}{+} \frac{-}{-} \frac{+}{+}$ (9)

$\rightarrow x^- : \frac{9}{\sqrt{0^-}} \rightarrow -\infty$ *تعريف*

ج) $\lim_{x \rightarrow 3} \frac{x^2 - 9}{\sqrt{x^2 - 4x + 3}}$ $\rightarrow x^+ : \frac{9}{\sqrt{0^+}} \rightarrow +\infty$ $\frac{+}{+} \frac{-}{-} \frac{+}{+}$ (9)

$\rightarrow x^- : \frac{9}{\sqrt{0^-}} \rightarrow +\infty$

(1,0)

د) $\lim_{x \rightarrow 2} \frac{x^2 - 4}{[x - 2]}$ $\rightarrow x^+ : \frac{9}{[0^+]} \rightarrow \frac{9}{1}$ *تعريف*

$\rightarrow x^- : \frac{9}{[0^-]} \rightarrow \frac{9}{-1} = -9$

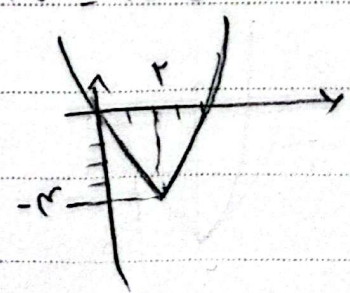
هـ) $\lim_{x \rightarrow 2} [x^2] + [-x^2]$ $\rightarrow x^+ : 9 + (-9) = 0$ (9)

$\rightarrow x^- : 4 + (-4) = 0$

و) $\lim_{x \rightarrow -2} [-x^2] + [x^2]$ $\rightarrow x^+ : 4 - 4 = 0$ (5)

$\rightarrow x^- : 4 - 4 = 0$

ز) $\lim_{x \rightarrow 2} [2^x - x^2]$ $= -3$



Arman

