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طالع‌های مختلف، با روش‌های مختلف

$\lim_{x \rightarrow r^+} f(x) - r = \Delta - r = \Delta$  ✓  $\lim_{x \rightarrow r^-} f(x) - r = \Delta - r = \Delta$  ✓ (۲) -۱

$\lim_{x \rightarrow r^+} f[x] - r = [x] = r \Rightarrow \Delta - r = \Delta$  ✓  $\lim_{x \rightarrow r^-} f[x] - r = [x] = 1 \Rightarrow r - r = 0$  ✓ (۲) -۲

$\lim_{x \rightarrow r^+} [f(x) - r] \rightarrow x > r \Rightarrow f(x) > \Delta, \Delta - r = \Delta \Rightarrow [\Delta] = \Delta$  ✓ (۲) -۳

$\lim_{x \rightarrow r^-} [f(x) - r] \rightarrow x < r \Rightarrow f(x) < \Delta \Rightarrow [\Delta^-] = r$  ✓

$[\lim_{x \rightarrow r^+} f(x) - r] \rightarrow [\Delta] = \Delta$  ✓  $[\lim_{x \rightarrow r^-} f(x) - r] \rightarrow [\Delta] = \Delta$  ✓ (۲) -۴

$\lim_{x \rightarrow r} \frac{f(x) - r}{x - r} \rightarrow \begin{cases} r^+ \rightarrow \frac{q}{0^+} = +\infty \\ r^- \rightarrow \frac{q}{0^-} = -\infty \end{cases}$  حد ندارد ✓ (۲) -۵

$\lim_{x \rightarrow r} \frac{f(x) - r}{(x - r)^2} \rightarrow \begin{cases} r^+ \rightarrow \frac{q}{0^+} = +\infty \\ r^- \rightarrow \frac{q}{(0^-)^2} = \frac{q}{0^+} = +\infty \end{cases}$  حد ندارد ✓

$\lim_{x \rightarrow r} \frac{f(x) - r}{\sqrt{x - r}} \rightarrow \begin{cases} r^+ \rightarrow \frac{q}{\sqrt{0^+}} = \frac{q}{0^+} = +\infty \\ r^- \rightarrow \frac{q}{\sqrt{0^-}} = \frac{q}{\sqrt{0^-}} = \text{UN} \end{cases}$  حد ندارد ✓ (۲) -۶

$\lim_{x \rightarrow r} \frac{f(x) - r}{\sqrt{x^2 - f(x) + r}} \rightarrow \begin{cases} r^+ = \frac{q}{\sqrt{0^+}} = +\infty \\ r^- = \frac{q}{\sqrt{0^-}} = \frac{q}{0^+} = \text{UN} \end{cases}$  حد ندارد ✓

$\lim_{x \rightarrow r} \frac{f(x) - r}{x^2 - \sqrt{x} + r} \rightarrow \begin{cases} r^+ = \frac{q}{0^-} = -\infty \\ r^- = \frac{q}{0^+} = +\infty \end{cases}$  حد ندارد ✓ (۲) -۷

$\lim_{x \rightarrow r} \frac{f(x) - r}{[x - r]} \rightarrow \begin{cases} r^+ = \frac{q}{[0^+]} = \frac{q}{0} = \text{UN} \\ r^- = \frac{q}{[0^-]} = \frac{q}{-1} = -q \end{cases}$  حد ندارد ✓

$$\lim_{x \rightarrow 2} [4x] + [-2x] \begin{cases} \rightarrow r^+ = 9 - 4 = 2 \\ \rightarrow r^- = 8 - 4 = 2 \end{cases} \rightarrow \text{محدود} \quad (2) \quad 1$$

$$\lim_{x \rightarrow 2} [-4x] + [2x] \begin{cases} \rightarrow -r^+ = 2^3 - 12 = 11 \\ \rightarrow -r^- = 2^2 - 12 = 11 \end{cases} \rightarrow \text{محدود} \quad (2) \quad 1$$

$$\lim_{x \rightarrow 2} [x^2 - 4x] \begin{cases} \rightarrow r^+ = [(-\epsilon)^+] = -\epsilon \\ \rightarrow r^- = [(-\epsilon)^+] = -\epsilon \end{cases} \rightarrow \text{محدود} \quad (2) \quad 1$$

$$\lim_{x \rightarrow 9} [4x - x^2] \begin{cases} \rightarrow r^+ = [9^-] = 9 \\ \rightarrow r^- = [9^-] = 9 \end{cases} \quad (2) \quad 1$$

$$\lim_{x \rightarrow 2} \frac{|x-2|}{x^2 - 2x + 2} \begin{cases} \rightarrow r^+ = \frac{x-2}{(x-2)(x-1)} = \frac{1}{x-1} = \frac{1}{1} = 1 \\ \rightarrow r^- = \frac{-(x-2)}{(x-2)(x-1)} = \frac{-1}{x-1} = \frac{-1}{1} = -1 \end{cases} \rightarrow \text{محدود} \quad (2) \quad 1$$

$$\lim_{x \rightarrow 1} = \frac{x - [x]}{x^2 - 1} \begin{cases} \rightarrow l^+ = \frac{x-1}{(x+1)(x+1)} = \frac{1}{x+1} = \frac{1}{2} \\ \rightarrow l^- = \frac{x}{x^2-1} = \frac{1}{0^-} = -\infty \end{cases} \rightarrow \text{محدود} \quad (2) \quad 1$$

$x < 1 \quad x^2 - 1 < 0$