

نوع 2 -

نوع 3

نوع 4

$$1) \lim_{x \rightarrow \infty} \frac{x+0}{x+1} = \frac{1}{1} = 1 \quad \lim_{x \rightarrow -\infty} \frac{x+0}{x+1} = \frac{1}{1} = 1$$

$$2) \lim_{x \rightarrow \infty} \frac{x+0}{x+1} = 1$$

$$3) \lim_{x \rightarrow 0} \frac{x+0}{[x^2]} \rightarrow \frac{0}{0} \rightarrow \text{محدود} \rightarrow \text{محدود}$$

$$1) \lim_{x \rightarrow \infty} [x] = \infty \quad \lim_{x \rightarrow -\infty} [x] = -\infty$$

$$2) \lim_{x \rightarrow \infty} [x-1] = \infty \quad \lim_{x \rightarrow -\infty} [x-1] = -\infty$$

$$3) \lim_{x \rightarrow \infty} \frac{[x]+1}{x} = \frac{1}{1} = 1 \quad \lim_{x \rightarrow -\infty} \frac{[x]+1}{x} = \frac{1}{1} = 1$$

$$4) \lim_{x \rightarrow \infty} \frac{[x]+1}{x} = 1 \quad \lim_{x \rightarrow -\infty} \frac{[x]+1}{x} = 1$$

$$1) \lim_{x \rightarrow \infty} \frac{x-0}{x(x-1)} = \frac{1}{1} = 1 \quad \lim_{x \rightarrow -\infty} \frac{x-0}{x(x-1)} = \frac{1}{1} = 1$$

$$2) \lim_{x \rightarrow \infty} \frac{x-1}{x^2-1} = \frac{1}{1} = 1 \quad \lim_{x \rightarrow -\infty} \frac{x-1}{x^2-1} = \frac{1}{1} = 1$$

$$1) \lim_{x \rightarrow \infty} [-x] = -\infty \quad \lim_{x \rightarrow -\infty} [-x] = \infty$$

$$2) \lim_{x \rightarrow \infty} \left[\frac{-1}{x^2} \right] = 0 \quad \lim_{x \rightarrow -\infty} \left[\frac{-1}{x^2} \right] = 0$$

$$\text{ii) } \lim_{n \rightarrow 1} [x_n^k - kx_n^{k-1}] \rightarrow n \rightarrow 1^+ \rightarrow [m^k]_{n=1^+}$$

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$$\text{ii) } \lim_{n \rightarrow 0} [x_n^k - kx_n^{k-1}] \rightarrow n \rightarrow 0^+ \rightarrow [k]_{n=0^+}$$

$$\text{ii) } \lim_{n \rightarrow 1} \frac{|x_n^k - 1|}{n^{k-1}} \rightarrow n \rightarrow 1^+ \rightarrow \frac{k}{1} = k$$

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$$\text{ii) } \lim_{n \rightarrow 2} \frac{|\sin n|}{\sin n} \rightarrow n \rightarrow 2^+ \rightarrow \frac{-\sin n}{\sin n} = -1$$

$$\text{ii) } \lim_{n \rightarrow \frac{\pi}{2}} \sqrt{\cos n} \rightarrow \frac{\pi}{2} \rightarrow \sqrt{0^+} = 0$$

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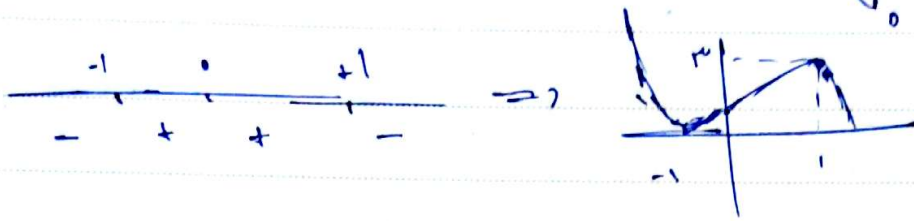
$$\text{ii) } \lim_{n \rightarrow 0} \sqrt{n} \rightarrow n \rightarrow 0^+ \rightarrow \sqrt{0^+} = 0$$

$$\text{ii) } \lim_{n \rightarrow \infty} \frac{(-1)^{[5 \ln n]}}{n^{1/(n-1)}} \rightarrow \frac{(-1)^0}{0^+} = \infty$$

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$$\text{ii) } \lim_{n \rightarrow 1} \frac{n^k - [n^k]}{n - [n]} \rightarrow n \rightarrow 1^+ \rightarrow \frac{(n-1)(n^k)}{n-1} = n^k = 1$$

ii) $\partial a^{\mu} - \partial a^{\nu} + \gamma \xrightarrow{\infty} 0$, $\partial a^{\mu} - \partial a^{\nu} \rightarrow 0$, $\partial a^{\mu} (1 - a^{\nu}) \rightarrow 0$ ± 1



iii) $a^{\mu} - a^{\nu} + \gamma \xrightarrow{\infty} 0$, $a^{\mu} - a^{\nu} \rightarrow 0$, $a^{\mu} (a^{\nu} - 1) \rightarrow 0$ ± 1

