

باز هم در تمام موارد از زنجیره ایستادت حسین یا رضامند شدی بعضی وقتها با لایسنس یا از هم رفتی

(50)

$$\lim_{x \rightarrow 0} \frac{\sqrt{x+1} - (x-1)(x-3)}{(x-1)(x-3)} = \frac{1}{12}$$

(9)

$$\lim_{x \rightarrow 0} \frac{|x-1| - |x+1|}{x} = \frac{-x+1 - x-1}{x} = \frac{-2x}{x} = -2$$

(9)

$$\lim_{x \rightarrow 4} \frac{(\sqrt{x+2})(\sqrt{x-2})}{(\sqrt{x-1})} = 4$$

(9)

$$\lim_{x \rightarrow 1} \frac{1 - \frac{1}{\sqrt{x}}}{x-1} = \frac{1}{2} = \frac{1}{2}$$

(9)

$$\lim_{x \rightarrow 0} \frac{\frac{-1}{\sqrt{x}}}{\frac{-1}{-2\sqrt{0-x}}} = \frac{-1}{2} = -\frac{1}{2}$$

(9)

$$\lim_{x \rightarrow 4} \frac{\sqrt{x+4} - 4}{\sqrt{5x+1} - 3} \times \frac{\sqrt{x+4} + 4}{\sqrt{x+4} + 4} \times \frac{\sqrt{(5x+1)^2 + 9} + 3\sqrt{5x+1}}{\sqrt{(5x+1)^2 + 9} + 3\sqrt{5x+1}} = \frac{4+4-16}{(4+4)(4+4)} \times \frac{1}{1} = \frac{1}{4}$$

(9)

$$= \frac{4(4-4)}{16} \times \frac{1}{1} = \frac{1}{4}$$

$$\lim_{x \rightarrow 1} \frac{\sqrt{x+1} - 1}{\sqrt{x} - 1} \times \frac{\sqrt{x+1} + 1}{\sqrt{x+1} + 1} \times \frac{(\sqrt{x} + 1 + \sqrt{x})}{(\sqrt{x} + 1 + \sqrt{x})} = \frac{x+1-1}{x-1} \times \frac{1}{1} = \frac{x}{x-1}$$

$$\frac{1(\sqrt{x}-1)(\sqrt{x}+1)}{1(\sqrt{x}-1)(\sqrt{x}+1)} = \frac{1}{1}$$

$$\frac{0}{0} \text{ form} \rightarrow \lim_{x \rightarrow \pi} \frac{(1 + \cos x)(1 + \cos x - \cos x)}{(1 - \cos x)(1 + \cos x)} = \frac{1}{1} = 1$$

$$\frac{0}{0} \text{ form} \rightarrow \lim_{x \rightarrow \frac{\pi}{2}} \frac{(\cos x - \sin x)}{\cos x} = \frac{1}{\cos x} = \sqrt{1} = 1$$

$$\frac{0}{0} \text{ form} \rightarrow \frac{\sin x - \cos x}{\cos x} = \frac{-1}{\cos x} = -1$$