

ایک طرف سے

$$\Rightarrow \frac{r-a}{r} \alpha \Rightarrow \left[\frac{r-a}{r} \right] 21$$

$$- \left[\frac{x+y}{y} \right]_{20}$$

$$a \rightarrow \frac{\lambda}{4}$$

②

2

①

143

143

$$\lim_{x \rightarrow -1} \frac{\sqrt{x+1} - \sqrt{x+8}}{1-\sqrt{x}} \cdot \frac{1+\sqrt{x}}{1+\sqrt{x}} = \frac{1+\sqrt{x}}{1-\sqrt{x}} \cdot \frac{\sqrt{x+1} + \sqrt{x+8}}{\sqrt{x+1} \cdot \sqrt{x+8}} \quad -9$$

$$= \frac{(1+\sqrt{x+1})(1+\sqrt{x+8})}{(1-\sqrt{x})(1+\sqrt{x})} = \frac{-1 \cdot (1+1) \cdot (-1)}{1} = -\frac{1}{1} \quad \checkmark$$

$$\lim_{x \rightarrow 1} \frac{x - \sqrt{x} + 0}{x - \sqrt{x+1}} \cdot \frac{1+\sqrt{x}}{1+\sqrt{x}} = \frac{1+\sqrt{x}}{x - \sqrt{x+1}} \quad -10$$

$$= \frac{-\frac{1}{2}}{\frac{0}{2}} = -\frac{1}{0} = -\infty \quad \checkmark$$

$$\lim_{x \rightarrow 0} \frac{a + \sqrt{bx+c}}{x} = \frac{1}{2} \Rightarrow a = \frac{1}{2} \Rightarrow a = \frac{1}{2} \quad -11$$

$$a + \sqrt{bx+c} \Rightarrow a + \sqrt{c} \Rightarrow \sqrt{c} = a \Rightarrow a = \sqrt{c} \quad -12$$

$$\lim_{h \rightarrow 0} \frac{h}{\sqrt{c}} = \frac{1}{\sqrt{c}} \Rightarrow h = \sqrt{c} \Rightarrow h = \frac{\sqrt{c}}{r} \quad -13$$

$$\Rightarrow \frac{dh}{c} = \frac{-\sqrt{c} + \frac{\sqrt{c}}{r}}{c} = -\frac{1}{r} \quad \checkmark$$

$$\lim_{x \rightarrow \infty} \left[\frac{x}{a} \right] = \infty \Rightarrow a = -x^2 \Rightarrow \left[\frac{x}{a} \right] = -x^2 \Rightarrow -4$$

$$\Rightarrow \lim_{x \rightarrow \infty} \left[\frac{x}{a} \right] = \infty \Rightarrow x < \infty \Rightarrow k < \infty \quad -14$$

$$x \rightarrow -x \Rightarrow \left[\frac{x}{a} \right] = -x \Rightarrow \lim_{x \rightarrow -x} \left[\frac{x}{a} \right] = -x \Rightarrow k < \infty \Rightarrow k < \frac{1}{r} \quad -15$$

$$\Rightarrow \frac{f(x) - f(a)}{x - a} \rightarrow \frac{f(b) - f(a)}{b - a} \quad \checkmark$$

$$\lim_{x \rightarrow a} \frac{b\sqrt{x} - \sqrt{a}}{x - a} = \frac{b\sqrt{a} - \sqrt{a}}{a - a} \rightarrow \frac{0}{0} \quad \text{بطل$$

$$\Rightarrow a = b \Rightarrow a = b, \quad \left(\frac{f(x) - f(a)}{x - a} \right) \rightarrow \frac{f(a) - f(a)}{a - a} = \frac{0}{0}$$

$$\Rightarrow \frac{x - a}{x - a} = \frac{x - a}{x - a} = 1 \quad \checkmark$$

$$x \rightarrow \left(-\frac{1}{x}\right)^- \rightarrow x < -\frac{1}{x} \rightarrow x^2 > \frac{1}{x} \rightarrow \frac{1}{x^2} < x \rightarrow \frac{x}{x^2} < 1 \rightarrow \left[\frac{x}{x^2}\right] = 1$$

$$\frac{1}{x^2} < x \rightarrow -\frac{1}{x^2} > -x \rightarrow \frac{-x}{x^2} > -1 \rightarrow \left[\frac{-x}{x^2}\right] = -1$$

$$\lim_{x \rightarrow \left(-\frac{1}{x}\right)^-} = \frac{1 \cdot x - (-1)}{14x - (-1)} = \lim_{x \rightarrow \left(-\frac{1}{x}\right)^-} = \frac{10x + 4}{14x + 1} = \frac{-1 + 4}{(-1) + 1} = \frac{3}{0^-} = -\infty$$

سوال 4