

B-jawab

مراجعة

(1)

(2)

$$x=1 \rightarrow 1+a+b=0 \Rightarrow a+b=-1$$

$$x=1 \rightarrow 1-a+b=0 \Rightarrow a-b=1 \quad \text{---} \quad \begin{cases} a=\epsilon \rightarrow a=\epsilon, b=-1-\epsilon \end{cases}$$

$$\Rightarrow \left| \frac{b-\epsilon a}{\epsilon} \right| = \left| \frac{-1-\epsilon-\epsilon}{\epsilon} \right| = \left| \frac{-1-2\epsilon}{\epsilon} \right| = \left| -\frac{1}{\epsilon} - 2 \right|$$

(3)

$$\lim_{x \rightarrow 1} \frac{f(x)-f(1)}{x-1} = \lim_{x \rightarrow 1} \frac{f(x)-1}{x-1} = 1 \Rightarrow a=1$$

$$\text{If } b = -\frac{f(x)-f(1)}{x-1} \rightarrow \text{If } b = -\frac{1}{1-1} \Rightarrow b = -\frac{1}{0}$$

$$\Rightarrow ab = -\frac{1}{11}$$

$$f(x) = a + b + b|a| + a|x| + b|a|, \text{ limit } \Rightarrow \begin{cases} \lim_{x \rightarrow 0^+} f(x) = a + b + b|a| \\ \lim_{x \rightarrow 0^-} f(x) = a + b + b|a| - a - b \end{cases}$$

$$\Rightarrow a + b + b|a| = b|a| \Rightarrow a = -b$$

$$\Rightarrow \frac{a|a|}{b|a|} = -1$$

(4)

$$f(x) = \frac{a}{f(b)} \Rightarrow b=0, \quad \frac{a}{f(b)} = \frac{a}{-1a} = -\frac{1}{f}$$

(5)

$$\frac{0}{0} \xrightarrow{\text{Hop}} \epsilon x + m = \epsilon \rightarrow m = \epsilon - \epsilon x \rightarrow m = \epsilon - \epsilon a$$

$$\epsilon a + m a + n = 0$$

$$\epsilon a + a m = 0 \rightarrow (\epsilon a + m) a = 0 \Rightarrow m = -\epsilon a$$

$$f(x) = 0 \xrightarrow{a \neq 0} \epsilon a + \epsilon a m + n = 0$$

$$\epsilon a \neq 0$$

$$-\epsilon a = \epsilon - \epsilon a \Rightarrow \left[a = -1, m = 1, n = 1 \right] \Rightarrow n - m = 1 - 1 = 0$$

$$\lim_{n \rightarrow \infty} f(n) \Rightarrow 1-a = r a^{r-1} \Rightarrow a < \frac{1}{r} \quad (7)$$

$$b \sin\left(\frac{1}{a}\right) = -1 \Rightarrow a = \frac{r}{r}, b = 1 \Rightarrow \frac{a}{b} = \frac{r}{r}$$

$$f(n) = \frac{n-1 \cdot |x+m+1|}{|n-1| (m|n+1|+1)} \xrightarrow{n \rightarrow \infty} \frac{|m+r|}{r m+1} = \frac{m+r}{r m+1} = \frac{m}{m+r} \Rightarrow m = \frac{r}{-1} \quad (8)$$

$$\lim_{n \rightarrow \frac{1}{m}} f(n) \begin{cases} \lim_{n \rightarrow -1} f(n) = -1 \\ \lim_{n \rightarrow \frac{1}{\varepsilon}} f(n) = \frac{1}{\varepsilon} \end{cases}$$

$$a(r a+m-r)=0 \Rightarrow m=r-r a \Rightarrow f(n) = \frac{r |a(n+1)|}{(n-a)^r} \begin{matrix} a+1=0 \\ \Rightarrow a=-1 \end{matrix} \quad (9)$$

$$x^r + (r-r a-r)x + a r = (n-a)^r$$

$$\Rightarrow \lim_{n \rightarrow 1} \frac{r(-x-1)}{(x+1)^r} = \frac{r}{|n+1|} = +\infty$$

$$\lim_{x \rightarrow 0} f(x) = \frac{x+1}{x+a} = \frac{r a-1}{r a+r} = \frac{1}{a} \Rightarrow a < \frac{1}{r} \quad (10)$$

$$\Rightarrow \lim_{n \rightarrow \frac{1}{r}} f(n) = \frac{\frac{1}{\varepsilon} + \frac{1}{r}}{\frac{1}{\varepsilon} + 1} = \frac{r}{\omega}$$