

B

برای هر

$$f(a) = \begin{cases} \cot \frac{\pi a}{f} & ; a < 1 \\ \sqrt{a^2 + 1} & ; a > 1 \end{cases} \quad f \circ f \left(\frac{1}{f} \right)$$

$$\cot \frac{\pi}{f} = \sqrt{f} \rightarrow \sqrt{\left(\frac{1}{f}\right)^2 + 1} = \sqrt{f} = \boxed{f}$$

$$f\left(\frac{1}{a}\right) = \frac{\sqrt{a^2 - 1}}{a^2}$$

$$g(a) = r \cos a$$

$$f\left(\frac{1}{f}\right) = \sqrt{\frac{f^2}{f^2} - 1} = \sqrt{\frac{f^2 - 1}{f^2}} = \frac{\sqrt{f^2 - 1}}{f}$$

$$f \circ g \left(\frac{M}{f} \right)$$

$$g\left(\frac{M}{f}\right) = \boxed{\frac{f}{f}}$$

$$f(a) = \sin a$$

$$g(a) = \frac{a}{1-a}$$

$$f \circ g(r)$$

$$\left[\frac{r}{1-r} \right] = \frac{r}{1-r}$$

$$\frac{r(1+r)}{-1} = \frac{r-r^2}{-1} = \frac{r-r^2}{-1}$$

$$f(a) = \sin a$$

$$g \circ f \left(\frac{M}{f} \right)$$

$$g(a) = a \sqrt{1-a^2}$$

$$\frac{a}{f} \sqrt{1 - \frac{a^2}{f^2}} = \frac{1}{f}$$

$$f(a) = \{(c, 1), (c, r), (c, a), (1, v)\} \quad g(a) = \{(b, r), (r, 1), (a, v), (b, 1)\}$$

$$(f, 1) \in f \circ g, (f, 1) \in g \circ f \quad (r, a)$$

$$a = f \rightarrow \frac{1}{f}$$

$$b \rightarrow f(r) = a$$

$$g\left(\frac{1}{f}\right) = \frac{1}{f}$$

$$g(a) = 1$$

$$g(a) = \{(f, 4), (r, f), (4, 1), (1, 0)\}, \quad f(a) = \{(f, 0), (4, 0), (1, 1), (r, 1)\}$$

$$f \circ g(a) = \{(f, 0), (r, 0), (4, 1), (1, 1)\}$$

$$g \circ f(a) = \emptyset$$

$$f \circ f(a) = \emptyset$$

$$g \circ g(a) = \{(f, 1), (r, 4), (4, 1)\}$$

$$f(f(a)) = \{r, f\}$$

$$g \circ f(-1)$$

4- اگر f و g حتماً باشد

$$g(r, r) = r - 1$$

$$a(ax+b)+b = f_a, r$$

$$a^2x+ab+b = f_a, r$$

$$a^2 = f$$

$$a = \pm f \rightarrow f_a + rb = f_a, r \Rightarrow b = 1$$

$$\rightarrow f_a - b = f_a, r \Rightarrow b = -r$$

$$f(a) = r_a + 1 = r(-1) + 1 = -1$$

$$f(a) = -r_a - r = -r(-1) - r = -1$$

$$f(-1) = -1$$

خبر

$$f(-a) = \sqrt{a+|a|}$$

$$g(a) = \frac{1}{a^2 - f_a}$$

-v

$$|a+|a|| = f\sqrt{a+|a|}$$

مراوه برگردان است

$$\frac{1}{a}$$

$$|a+|a|| = f\sqrt{a+|a|}$$

$$\frac{1}{a} = \frac{1}{f} + Df = R^r = \{1\}$$

Scbó

$$f(a) = \sqrt{1-a^r} \quad D_f = \{ -a^r \} \quad -\frac{1}{f} + \frac{1}{f} = 0 \quad \cdot 1$$

$$g(a) = \sqrt{a} \quad D_g = \{ a \} \quad R f(a) = \begin{bmatrix} 1 \\ 0 \end{bmatrix} \quad \begin{bmatrix} 0 \\ 1 \end{bmatrix}$$

$$\sqrt{1-a^r} + \sqrt{a} \Rightarrow \sqrt{1-a^r} + \sqrt{1-a^r} \quad D(f+g) \circ f = \begin{bmatrix} 1 & 1 \end{bmatrix}$$

$$f\left(\frac{r+1}{2-r}\right) = f(a) \quad \frac{r+1}{2-r} = t \quad a = \frac{-rt-1}{t-r} = \frac{rt+1}{t-r} \quad -9$$

$$f(a) = \frac{1-r-1}{2-r} \quad f\left(\frac{1+t}{t-r}\right) = a \quad \frac{1+t+t-1}{t-r} = \frac{1+t-1}{t-r}$$

$$f\left(a + \frac{1}{a}\right) = a^r + \frac{1}{a^r} \quad a + \frac{1}{a} = t \quad +^r = rt \quad \left(a + \frac{1}{a}\right)^r = r\left(a + \frac{1}{a}\right)$$

$$f(t) = t^r - rt \Rightarrow f(a) = a^r - ra$$

$$g(a) = 1, \sqrt{r}$$

$$f(a) = a\sqrt{a}$$

$$g(f(a)) = \cdot$$

$$f(a) = 1 \rightarrow a\sqrt{a} = 1 \Rightarrow \sqrt{a^r} = 1 \Rightarrow a = 1$$

$$f(a) = r\sqrt{r} \rightarrow a\sqrt{a} = r\sqrt{r} \Rightarrow \sqrt{a^r} = r\sqrt{r} \Rightarrow a = r$$

$$(a_1 - a_2) = r - 1 = 1$$