

منزل رقم ١

$$|j_{\uparrow}^{n-1}\rangle \cdot |n\rangle_1 \quad f(n) = \sqrt{\frac{1}{j_{\uparrow}^{n-1}}} \rightarrow \gg \cdot \quad |n-1\rangle_1 \Rightarrow |n\rangle_1 \cdot$$

$$g(n) = 1 - (n-p)^p \Rightarrow 1 - \left(\frac{1 \cdot \log \frac{n-1}{p}}{1} \right)^p \Rightarrow \log \frac{n-1}{p} = 0 \Rightarrow \frac{n-1}{p} = 1$$

$$g(x) = \left(x - \frac{13}{p}\right)^p + \frac{13}{\delta}$$

$$f(g) = pg \quad g \circ f = \frac{a}{p}n^p + 1 \rightarrow g(n) = \frac{a}{p}(n)^p + 1 \Rightarrow \frac{a}{p}(pg)^p + 1 = \frac{a}{p}n^p + 1 \Rightarrow$$

$$a(pg)^p + 1 = \frac{a}{p}n^p + 1 \quad \frac{a}{p}n^p = 0 \quad \leftarrow$$

$$f^{-1}(V) = \frac{a}{p}n^p + 1 + V = \frac{a}{p}n^p + 1 \rightarrow n = -\frac{b}{pa} = 0$$

$$y = 1$$

$$\begin{aligned} f(x) &= 10x - 5 \quad \Rightarrow \quad \frac{10(x^p - 10x + 4)}{10x^p - 40x + 40} - 5 = 10x^p - 40x - 1 \quad \text{--- F} \\ f \circ g(x) &= 10x^p - 40x - 1 \quad \Rightarrow y = 1 \\ \Rightarrow g(x) &= \cancel{10x^p - 40x - 1} \quad 10x^p - 40x + 1 = (x-1)^p \quad g \circ f(x) = (10x - 5 - 1)^p = (10x - 6)^p \\ &= 10x^p + 10^p - 10 \cdot x \end{aligned}$$

$$f - g = -x + 1 \quad f \circ g(x) =$$

$$f(f(x) - g(x) - 1) = -f(x)$$

$$\Rightarrow f(-x + 1) - 1 = -f(x) + 1 - 1 = -f(x) \Rightarrow f(x) = -x + 1$$

$$\Rightarrow f(g(x)) = -g(x) + 1 = -x + 1 \Rightarrow g(x) = -x + 1$$

$$\Rightarrow f \circ g(x) = f(-x + 1) = -(-x + 1) + 1 = x \Rightarrow a = -\frac{1}{4} = -\frac{1}{4}$$

$$g(x) = \log_p x$$

$$f \circ g(x) = \log_p \log_p x = \log_p x^p = x^p$$

$$g \circ f(x) = \log_p (-x + 1) = \log_p (1 - x) = p \log_p (1 - x) = p \log_p (1 - x)$$

$$\Rightarrow f \circ g(x) = x^p \Rightarrow x^p = x^p \Rightarrow x = [0, 1]$$

$$f\left(x - \frac{1}{x}\right) = x^p + x - 1 - \frac{1}{x} + \frac{1}{x^p}$$

$$\Rightarrow f(x) = x^p + x$$

$$\left(x - \frac{1}{x}\right)^p = x^p + \frac{1}{x^p} - 1 - \frac{1}{x} + \frac{1}{x^p}$$

$$x - \frac{1}{x} = 1 \Rightarrow x = 1$$

$$f(x) = \log_p x$$

$$f \circ g(x) = \log_p (1 - x^p)$$

$$\Rightarrow \log_p (1 - x^p) = \log_p (1 - x^p) \Rightarrow x = (1 - x^p)^{1/p}$$

$$f \circ g(x) = (-\infty, 1]$$

$$x = \sqrt[p]{1 - x^p}$$

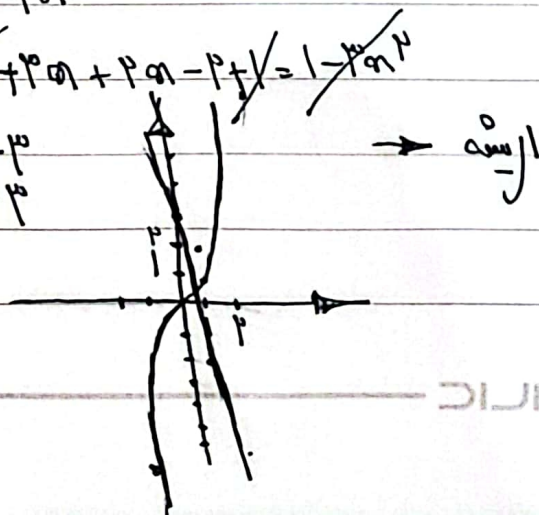
$$x^p = 1 - x^p \Rightarrow x^p = \frac{1}{2}$$

$$f \circ f(x) = 1 - x^p \Rightarrow f(x) = 1 - x^p$$

$$(x - 1)^p + p(x - 1)^{p-1} = x^p - 1 \Rightarrow x^p - 1 = x^p - 1$$

$$\Rightarrow x^p + px - p = 0 \Rightarrow x^p = -px + p$$

$$x^p = -px + p$$



$$f(x) = x - \frac{x}{x} = 0 \quad x^2 - 2x - 3 = 0 \quad (x-3)(x+1) = 0 \quad \begin{matrix} x=3 \\ x=-1 \end{matrix} \quad -1$$

$$f \circ f(x) = 4x + 1 = 1 \Rightarrow x = 0$$

$$-9x - 1 = 1 \Rightarrow x = -1$$