

$$F(n) = 9^n \quad g(n) = \log_9^n$$

$$\left. \begin{aligned} F \circ g(n) &= 9^{\log_9^n} \rightarrow n^{\log_9 9} = n^1 = n \\ g \circ F(n) &= \log_9 9^n = n \end{aligned} \right\} \rightarrow n^r \leq 2n \rightarrow n^r - 2n \leq 0$$

$$n(n-2) \leq 0 < 2$$

$$\text{محل های } x = 0, 1, 2$$

$$\Delta = 4 - 4 = 0$$

$$\begin{array}{c} 0 \quad 2 \\ + \quad - \quad + \\ \hline 2 \cdot 2 \end{array}$$

$$F\left(\frac{n^r - 2}{n}\right) = n^r + n - 2 - \frac{2}{n} + \frac{2}{n^r} \quad F(n) = ?$$

$$n - \frac{2}{n} \rightarrow \left(n - \frac{2}{n}\right)^r = n^r + \frac{2}{n^r} - 2$$

$$\left(n - \frac{2}{n}\right)^r + \left(n - \frac{2}{n}\right) \rightarrow$$

$$F\left(n - \frac{2}{n}\right) = \left(n - \frac{2}{n}\right)^r + \left(n - \frac{2}{n}\right) \rightarrow \boxed{F(n) = n^r + n}$$

$$F(n) = \log_9^n \quad g(n) = \wedge n - n^r \quad \therefore B \rightarrow A \quad F \circ g \quad A \cap B?$$

$$F \circ g(n) = \log_9^{\wedge n - n^r} \quad \Rightarrow \wedge n - n^r > 0 < \wedge \quad \frac{0}{1+1} = \rightarrow (0, 1)$$

$$R_{F \circ g} \rightarrow x_{\max} = -\frac{b}{2a} = \frac{1}{2} \rightarrow (-\infty, \frac{1}{2}]$$

$$y_{\max} = 14$$

$$A = (0, 1) \quad B = (-\infty, \frac{1}{2}] \quad A \cap B \rightarrow \{1, 2, 3, 4\}$$

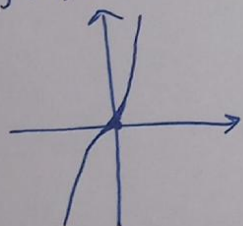
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$$f \circ f(n) = 1 - 3^n F'(n) \quad g(n) = n - 1 \quad h(n) = n^r + 2n + 1 \quad h(g(n)) = F(n)$$

$$\rightarrow f(n) = 1 - 3^n$$

$$h(g(n)) = F(n) \rightarrow (n-1)^r - 2(n-1) + 1 = 1 - 3^n$$

$$n^r + 2n - 3^n - 2 = 1 - 3^n \rightarrow n^r + 2n - 3^n = 0$$



$$-\frac{b}{2a} = 0$$

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$$F(x) = x - \frac{x}{n} \quad g \circ f(n) = an^r + 2n \quad g(1) = 1 \quad a?$$

$$x - \frac{x}{n} = 1 \rightarrow x = 2$$

$$x - \frac{x}{n} = 1 \rightarrow x = -1$$

$$g(F(2)) = 1 \rightarrow 4a + 4 = 1 \rightarrow \underline{a = -\frac{3}{4}}$$

$$g(F(-1)) = 1 \rightarrow -a - 2 = 1 \rightarrow \underline{a = -3}$$