

$$\begin{aligned}
 n^2 - 4 &= 12n - 10 & n^2 - 12n + 14 &= 0 \\
 &= n^2 - 12n + 4n + 17 & &= n(n-12) + 4(n+4) = (n+4)(n-12) \\
 & & &= (n+4)(n-12) \\
 n &= -4, 12 & &= 2 \text{ نوبت} \Rightarrow 2 \text{ نوبت}
 \end{aligned}$$

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$$f(x) = x = 12 + k \quad k = -10 \quad f(n) = 12n - 10$$

$$f(1) = 11$$

$$f(f(n)) = f(12n - 10) = 12(12n - 10) - 10 = 144n - 130$$

$$\begin{aligned}
 (a, f(a)) & \quad f(a) = f(a) = \frac{a \times a}{a-1} = f(a) \Rightarrow a^2 = f(a)^2 - f(a) \quad a^2 - f(a) = 0 \\
 & \quad \boxed{a = 1, 0}
 \end{aligned}$$

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$$1) f \circ f^{-1} = \{(1, 1), (2, 2), (3, 3), (4, 4)\}$$

$$2) f^{-1} \circ f = \{(1, 1), (2, 2), (3, 3), (4, 4)\}$$

$$3) f \circ g^{-1} = \{(1, 1), (2, 2)\}$$

$$4) g^{-1} \circ f = \{(1, 1), (2, 2), (3, 3)\}$$

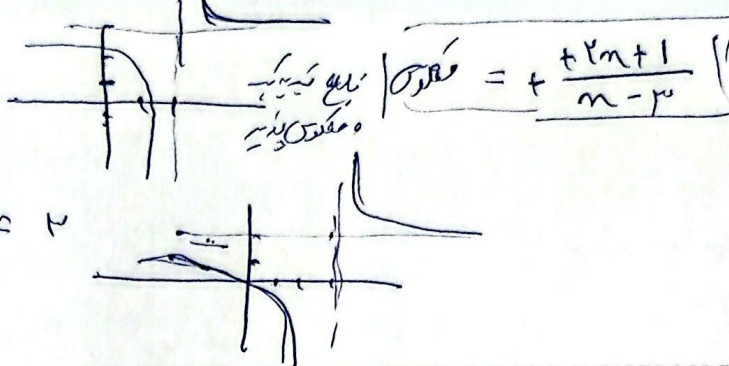
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$$\begin{aligned}
 D &= \{1, 2, 3\} \Rightarrow \begin{matrix} 1 & 2 & 3 \\ \frac{1}{2} & \frac{1}{3} & \frac{1}{4} \end{matrix} \\
 &= D = \{1, 2, 3\}
 \end{aligned}$$

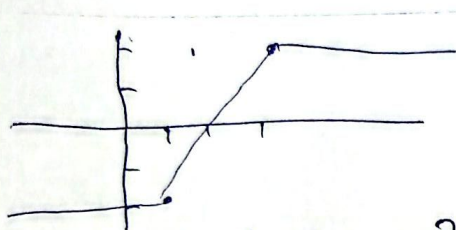
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$$\frac{h}{f \circ g^{-1}} = \left\{ \frac{1}{2} \right\}$$

$$y = 3 \quad x = 2$$



$$f^{-1}(x) = 2 \Rightarrow x = 3 \quad f(x) = 2 \Rightarrow x = 3$$



و ۳ و ۲
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و ۳ و ۲
[۱, ۳]

$$f^{-1}(x) = 2 \Rightarrow x = 3 \quad f(x) = 2 \Rightarrow x = 3$$

$$f^{-1}(x) = \begin{cases} \sqrt{x-1} & x \geq 1 \\ \frac{x+1}{x} & x < 1 \end{cases}$$

$$f(x) = \frac{x^2 - (x+1)^2 + 1}{x+1} = \frac{-x-1}{x+1} \Rightarrow f^{-1}(x) = -\frac{x+1}{x+1} = -1$$

$$y_1 = \frac{m_1}{m_1^2 + 1} \quad y_2 = \frac{m_2}{m_2^2 + 1} \Rightarrow \frac{m_2}{m_2^2 + 1} = \frac{m_1}{m_1^2 + 1} \Rightarrow m_1 m_2^2 + m_1 = m_2 m_1^2 + m_2$$

مجموعه