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$$y = x + [x] \rightarrow [y] = [x + [x]]$$

$$\rightarrow [y] = [x] + [x] = 2[x] \rightarrow [x] = \frac{1}{2}[y]$$

$$\rightarrow y - x = \frac{1}{2}[y] \rightarrow x = y - \frac{1}{2}[y] \rightarrow f^{-1}(x) = x - \frac{1}{2}[x]$$

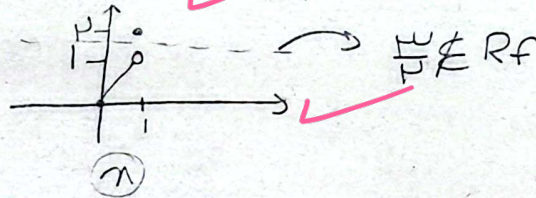
$$f^{-1}(x) = f(x) \rightarrow x - \frac{1}{2}[x] = x + [x] \rightarrow \frac{3}{2}[x] = 0 \rightarrow [x] = 0$$

$$\rightarrow 0 \leq x < 1 \rightarrow \text{سی ستار}$$

$$f(f^{-1}(x)) = x$$

$x \in Df^{-1}$
 $x \in Rf$

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



معادلات $\rightarrow Kx + b = 0 \rightarrow x = -\frac{b}{K}$ معادلات $\rightarrow y = \frac{a}{K}$

$$\rightarrow x = y \rightarrow -\frac{b}{K} = \frac{a}{K} \rightarrow a = -b$$

تابع برزاردن صورت خطی است

$$\rightarrow f(f(x)) \rightarrow f(x) = f^{-1}(x) \quad f(f^{-1}(x)) = x \rightarrow \omega - \sqrt{4}$$

$$\frac{mx + \mu}{x + m + \mu} = x \rightarrow x^2 + mx + \mu x = mx + \mu$$

$$\rightarrow x^2 + \mu x - \mu = 0 \quad \frac{1}{a} + \frac{1}{b} = \frac{a+b}{ab} = \frac{-\mu}{-\mu} = 1$$

$$|Kx + \omega| - |\omega x - \mu| =$$

$$y = -\mu x + \nu \rightarrow x = \frac{\nu - y}{\mu}$$

$$f^{-1} = \frac{\nu - x}{\mu}$$

$$Kx + \omega - \omega x + \mu = -\mu x + \nu$$

بازه نوری

$$-Kx - \omega + \omega x - \mu = \mu x - \nu$$

$$Kx + \omega + \omega x - \mu = \nu x + \mu$$

$$g(g^{-1}(x)) = g\left(af^{-1}\left(\frac{x+b}{c}\right) + d\right) \Rightarrow$$

$$x = pf\left(pa f^{-1}\left(\frac{x+b}{c}\right) + pd\right) - 1$$

$$f\left(pa f^{-1}\left(\frac{x+b}{c}\right) + pd\right) = \frac{x+1}{p} \rightarrow a = \frac{1}{p}, b = 1, c = p, d = 0$$

$$\frac{ac+d}{pb} = \frac{\frac{1}{p} \cdot p}{p \cdot 1} = \frac{1}{p}$$

$$y = x + p\sqrt{x} = (\sqrt{x} + 1)^p - 1 \rightarrow (\sqrt{x} + 1)^p = y + 1$$

$$\rightarrow \sqrt{x} + 1 = \pm \sqrt{y+1} \rightarrow \sqrt{x} = \sqrt{y+1} - 1 \rightarrow$$

$$x = y + 1 + 1 - 2\sqrt{y+1} \rightarrow x = y + 2 - 2\sqrt{y+1} \rightarrow y = x + 2 - 2\sqrt{x+1}$$

$$Df^{-1} = Rf \quad Rf \rightarrow (\sqrt{x} + 1)^p - 1 \rightarrow$$

$$\sqrt{x} \geq 0 \rightarrow (\sqrt{x} + 1)^p \geq 1$$

$$Df^{-1} = (0, \infty)$$

$$\rightarrow (\sqrt{x} + 1)^p - 1 > 0$$

$$y = \underbrace{x-1}_{\text{معدول اليه}} + \underbrace{p^x}_{\text{معدول اليه}}$$

$$\rightarrow p^x + x - 1 = x \rightarrow p^x = 1 \rightarrow x = 0$$

$$(0, 0)$$

$$f^{-1}(x) - x \geq 0 \rightarrow f^{-1}(x) \geq x \xrightarrow{\text{از طرفين f مي گيريم}} \underbrace{f(f^{-1}(x))}_{x, x \in Df^{-1}} \geq f(x)$$

$$\rightarrow f(x) \leq x \rightarrow x^p + px \leq x \rightarrow x^p + px \leq 0 \rightarrow x(x^p + p) \leq 0 \rightarrow x \leq 0$$

$$(x-1) + \sqrt{x+1} = 0$$

$$x + 1 = \sqrt{x+1} \quad (x+1) = \sqrt{x+1}$$

اعداد صحیح نامندی

سنتی

$$0 \rightarrow \textcircled{\mu}$$

$$1 \rightarrow$$

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$$f^{-1}(\lambda + \mu) = \lambda - \mu \rightarrow f(\lambda - \mu) = \lambda + \mu \quad \lambda \in Df(\lambda - \mu) \quad \lambda \geq 0$$

$$\rightarrow \frac{-(\lambda - \mu)}{-\lambda + \mu} + \sqrt{\lambda + 1} = \lambda + \mu \rightarrow \sqrt{\lambda + 1} = \lambda + \mu + \lambda - \mu$$

$$\sqrt{\lambda + 1} = \mu \lambda + 1 \rightarrow \lambda + 1 = \mu^2 \lambda + \mu \lambda + 1$$

$$\mu^2 \lambda + \mu \lambda = 0 \rightarrow \lambda(\mu^2 + \mu) = 0 \rightarrow \lambda = 0$$

$$\mu = -\frac{1}{\mu} \text{ (C.C.E.)}$$

$$f(f(x)) = -$$

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$$\sqrt{y} = \mu - \sqrt{x} \rightarrow y = (\mu - \sqrt{x})^2$$

$$f(f(x)) = f((\mu - \sqrt{x})^2) = \left(\mu - \sqrt{(\mu - \sqrt{x})^2} \right)^2 = \left(\mu - |\mu - \sqrt{x}| \right)^2$$

$$\mu - \sqrt{x} \geq 0 \text{ نسي } \mu - \sqrt{x} = \sqrt{x}$$

$$(\mu - \mu + \sqrt{x})^2 = (\sqrt{x})^2 = x$$

$$\sqrt{y} = \mu - \sqrt{x} \rightarrow \mu - \sqrt{x} \geq 0 \rightarrow x \leq \mu^2$$

