

$$f(m) = \frac{mn + p}{n + m + p}$$

$$f^{-1}(n) = \frac{-(m+p)n + p}{n - m}$$

Q13

$$f(m) = f^{-1}(n) \Rightarrow \frac{mn + p}{n + m + p} = \frac{-(m+p)n + p}{n - m}$$

Q

$$\Rightarrow (m+p)n^2 + (9+4m)n - 4m - 9 = 0$$

$$\frac{1}{a} + \frac{1}{b} = \frac{a+b}{ab} = \frac{8}{p} \Rightarrow \frac{-b}{c} \Rightarrow -\frac{b}{c}$$

$$\frac{-(9+4m)}{-9-4m} = 1$$

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

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

$$m = f\left(af^{-1}\left(\frac{n+b}{c}\right) + d\right) - 1 \Rightarrow a = \frac{1}{f}$$

$$\frac{n+1}{2} = \frac{n+b}{c} + d \rightarrow c = 2, b = 1, d = 0$$

$$\frac{ac+d}{cb} \Rightarrow \frac{\frac{1}{2} + 0}{2 \cdot 1} = \frac{\frac{1}{2}}{2} = \frac{1}{4}$$

دست ن (ارباب)

$$f(m) = m + 2\sqrt{m} \quad (\text{First}) \quad (\sqrt{m} + 1)^2 - 1$$

$$f^{-1}(m) \rightarrow y+1 = (\sqrt{m+1})^2 \rightarrow \sqrt{y+1} = \sqrt{m} + 1$$

$$\sqrt{y+1} - 1 = \sqrt{m} \rightarrow f^{-1}(\sqrt{y+1} - 1)^2 = m \rightarrow f^{-1}(\sqrt{y+1} - 1)^2 = m$$

$$Df = Rf^{-1} \rightarrow Df \Rightarrow u_f, Rf^{-1} = u_f$$

$$Rf = Df^{-1} \rightarrow Rf^{-1} = u_f, Df^{-1} = u_f$$

$$n = (r^n) + n - 1 \rightarrow r^n + n - 1 = n \rightarrow r^n = 1 \rightarrow n = 0$$

س (N/A)

$$f^{-1}(m) \geq m \xrightarrow{f^{-1} \text{ is increasing}}, f(f^{-1}(m)) \geq f(m) \rightarrow m \geq m + \varepsilon_m$$

Q12

$$m^2 + 14m + 14 = m + \varepsilon \rightarrow \varepsilon m^2 + 13m + 12 = 0$$

Q12

$$f^{-1}(n + \varepsilon) = g(m) \quad f(x) = \beta \rightarrow f^{-1}(\beta) = \gamma$$

Q12

1

$$f(\infty) = (m + \varepsilon) \rightarrow -m + \sqrt{m + \varepsilon} = m + \varepsilon \rightarrow m + \varepsilon = \sqrt{m + \varepsilon}$$

$$m^2 + 14m + 14 = m + \varepsilon \rightarrow \varepsilon m^2 + 13m + 12 = 0$$

$$g(m) = m - 3 \rightarrow \varepsilon m^2 + 13m + 12 = m - 3 \rightarrow$$

$$\varepsilon m^2 + 12m + 15 = 0 \rightarrow 204 - 2\varepsilon = 14 \rightarrow$$

$$m_1 = \frac{-12 + \varepsilon}{\varepsilon}, \quad m_2 = \frac{-12 - \varepsilon}{\varepsilon} \quad \left\{ \begin{array}{l} \text{Göe} \\ \text{مع } \varepsilon \text{ بزرگتر از } 1 \end{array} \right.$$

$$f = \sqrt{m} + \sqrt{4} = r \rightarrow f^{-1} = \sqrt{m} + \sqrt{4} = r$$

Q12

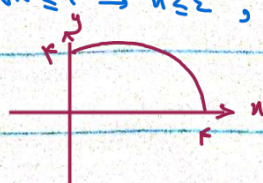
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$$f \circ f(m) = f \circ f^{-1}(m) = m$$

$$\sqrt{4} = -\sqrt{m} + r \xrightarrow{+} \sqrt{m} \leq r \rightarrow m \leq r^2, m \geq 0$$

$$Df = [r, r] \text{ I}$$

$$Rf = [0, r^2] \text{ II}$$



$$I \cap II \rightarrow Df = Rf \rightarrow f(m) = f^{-1}(m)$$

$$f \circ f(m) = f \circ f^{-1}(m) = m$$



$$f(n) \xrightarrow[\text{نهایت}]{\approx \bar{p}} f^{-1}(n) \xrightarrow{\text{دایره}} f^{-1}(n+2) \rightarrow g(n) \subset f^{-1}(n+2)$$

$$n-1 \subset f^{-1}(2+n) \xrightarrow{f} f(n-1) \subset n+2$$

$$-n+1+\sqrt{n+1} = n+2 \rightarrow \sqrt{n+1} = \sqrt{n+1} \quad \leftarrow n^2+2n+1 \subset n+1$$

$$n^2+1 \subset 0 \rightarrow n \subset 0 \quad \checkmark$$

$$\hookrightarrow n \subset -\frac{1}{2} \quad \text{جواب را در متن -}$$