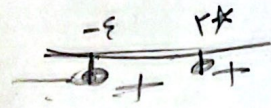


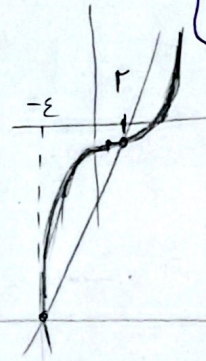
۱- در مورد a ، باید بداند که f یک تابع یک به یک است. $f(n) = 3n - 10$ ۲.

$$n^3 - \varepsilon = 12n - 10 \rightarrow n^3 - 12n + 14 = 0 \rightarrow \begin{cases} 4 \\ -1 \end{cases}$$

$$n^3 - \varepsilon > 12n - 10 \rightarrow n^3 - 12n + 14$$



$$a > -\varepsilon$$



تابع یک به یک - یا زوج - یا فرد

۵

مثال: $f(n) = 3n - 10$ ۱۱

$f^{-1}(r) = \varepsilon$ و $f(n) = 3n - 10$

$f(f(n)) = 3(3n - 10) - 10 = 9n - 40 = 9n - \varepsilon$ ۱۲

$f^{-1}(r) = \varepsilon \rightarrow f(\varepsilon) = r \rightarrow 3(\varepsilon) - 10 = r \rightarrow \varepsilon = \frac{r+10}{3}$

$f(n) = \frac{an}{n-1}$ ۱۳

$f^{-1}(n) \rightarrow f\left(\frac{an}{n-1}\right) = n \rightarrow \frac{an}{n-1} = n \rightarrow an = n^2 - n \rightarrow a = n - 1$

$\frac{an}{n-1} = n \rightarrow an - n = n^2 - n \rightarrow n = 2$

$ra = n - \varepsilon \rightarrow ra = \varepsilon \rightarrow a = r$ ۱۴

$f = \{(1, 2), (2, 4), (3, 6), (4, 8)\}$ و $g = \{(2, 1), (4, 2), (6, 3), (8, 4)\}$ ۱۵

$f \circ g^{-1}$ ۱۶

$f \circ g^{-1}$ ۱۷

$f \circ g^{-1}$ ۱۸

$f \circ g^{-1}$ ۱۹

$h = \{(1, 2), (2, 4), (3, 6), (4, 8)\}$ و $g = \{(2, 1), (4, 2), (6, 3), (8, 4)\}$ و $f = \{(1, 2), (2, 4), (3, 6), (4, 8)\}$ ۲۰

$f \circ g^{-1}$ ۲۱

$\frac{h}{f \circ g^{-1}}$ ۲۲

$\frac{h}{f \circ g^{-1}}$ ۲۳

۵

A hand-drawn sketch of a coordinate system. A vertical y-axis and a horizontal x-axis intersect at the origin. A curve is drawn in the second and third quadrants, passing through the y-axis at a point labeled 'y'. A straight line is drawn tangent to the curve in the third quadrant, intersecting the x-axis at a point labeled 'x'.

A horizontal number line with two tick marks. The first tick mark is labeled '1' and the second tick mark is labeled '1/2'.

r_{m-s}

$$\begin{aligned} \gamma &\rightarrow \gamma \\ 1 &\rightarrow -\gamma \\ \varepsilon &\rightarrow -\gamma \\ 0 &\rightarrow 1 - \gamma = -\gamma \end{aligned}$$

$$Q_f = [-r, r]$$

$$f(n) = \begin{cases} 1 & \text{if } n = 1 \\ f(n-1) + 1 & \text{if } n > 1 \end{cases}$$

$$y^r + \varepsilon = y \xrightarrow{\sigma_{\mu}} y^r + \varepsilon = n \rightarrow y^r = \sqrt{n - \varepsilon}$$

$$(5, +\infty) \rightarrow \text{دائره اوج مع} = \text{سیران مع ۱۱۲}$$

✓ → برداشت صحیح = دانسته صحیح باشد

$$\{y = \varepsilon x - 1 \xrightarrow{\text{س}} x = \varepsilon y - 1 \rightarrow \frac{x+1}{\varepsilon} = y$$

$$y = \frac{n+1}{2}$$

$[(-1, -\infty) \cup (0, \infty)]$ دانه این هم = در آن جا

ک → برد این مع = (اندازه برد)

$$\mathcal{F}(n)^{-1} = \begin{cases} \sqrt{n-\varepsilon} & ; \quad n \geq 0 \\ \frac{n+1}{\varepsilon} & ; \quad n \leq -1 \end{cases}$$

4- حدیثہ باتوں سے

$$f(n) = n^2 - \frac{(n+1)^2}{n+3}$$
 ہے۔

$$\rightarrow b = (-r) \rightarrow f'(-r) = \frac{-4(-r) - r}{r(-r) + 4} = \frac{10}{r} = \odot$$

$$n = \frac{-ry - 1}{y + r} \rightarrow ry + rn = -ry - 1$$

$$y(n + r) = -rn - 1$$

$$\rightarrow y = \frac{-5m-1}{m+5} \rightarrow \frac{-4m-5}{m+4}$$

$$u_f \frac{y}{y^{r+1}} \rightarrow \alpha y^{r+n} = y \rightarrow \alpha y^{r-n} y + n = 0 \rightarrow$$

$$P_0 = \frac{n}{n^{r+1}} \rightarrow$$

$$= \frac{n}{n^r + 1}$$

$$y = \frac{1 \pm \sqrt{1 - \varepsilon n^r}}{r n}$$