

$$\rightarrow \frac{1}{4} \times |9 \times P|$$

معنى انسيب واصل انسيب

$$\frac{1}{4} \times \frac{1}{2} \times \frac{1}{2} = \frac{1}{14}$$

★ f, f^{-1} دالة انسيب واصل انسيب f, f^{-1} دالة انسيب واصل انسيب

$$2y = 2u - 1$$

$$2y = 0 - 1 \quad y = -\frac{1}{4}$$

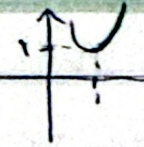
$$0 = 2u - 1 \rightarrow u = \frac{1}{4}$$

(1)

$$(الف) \quad y = x^2 - 2x + 3 \quad x \in (1, +\infty)$$

$$\frac{-b}{2a} = \frac{2}{2} = 1 \rightarrow R_2 (2, +\infty)$$

$$1 - x + 3$$



(2) دالة انسيب واصل انسيب

$$x = y^2 - 2y + 3 \rightarrow x - 2 = y^2 - 2y + 1$$

$$x - 2 = (y - 1)^2$$

نثبت ان f دالة انسيب واصل انسيب

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

$$x \geq 2$$

$$(ب) \quad y = u^2 - 2u + 3 \quad u \in (2, +\infty)$$

$$\Rightarrow R_f = [4, +\infty)$$

$$\frac{2u}{2} = 1$$

$$u^2 - 2u + 3$$

$$u = y^2 - 2y + 3$$

$$u - 2 = y^2 - 2y + 1$$

$$u - 2 = (y - 1)^2$$

$$y = \sqrt{u - 2} + 1$$

$$u \geq 4$$

$$f(u) = 2u - \sqrt{14} \varepsilon u(2 - u)$$

$$f(u) = 2u - 14u + 14$$

$$(2u - 4)^2$$

$$f(u) = 2u - (2u - 4)$$

ان f دالة انسيب واصل انسيب

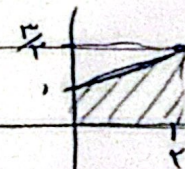
$$f(u) = 2u - 4$$

$$u < 2$$

$$\Rightarrow f^{-1}(u) = \frac{u + 4}{2} = \frac{1}{2}u + 2$$

بذلك f دالة انسيب واصل انسيب

$$|f^{-1}(u)|$$



$$S = (1 + \frac{1}{2} \sqrt{14})^2$$

(3)

(4)

sam

$y = \frac{u}{\sqrt{x^T - \omega}}$ $\rightarrow$ $\frac{\partial u}{\partial y}$

$(+)$ $\frac{\partial u}{\partial y} = \sqrt{x^T - \omega}$

$p^{-1}(u) y = \sqrt{\frac{\partial u^r}{x^T - 1}}$

$x = \frac{y}{\sqrt{y^T - \omega}} \Rightarrow x^T = \frac{y^T}{|y^T - \omega|} \rightarrow y^T x^T - \omega x^T = y^T$

$y^T(x^T - 1) = \omega x^T$

$$g(x) = \begin{cases} x^2 - 2x + k & x \geq 1 \\ -x^2 + 4x + 3k & x < 1 \end{cases} \quad \text{r. l. d.}$$

~~$|y| = r|u| + |u| \quad (1) \quad |y| = \varepsilon|u|$~~

از روی قلم و خط من سیدم اما حاضر شد
صورت (۴)

$$y = ru + |n| \rightarrow u = ry, \underbrace{|y|}_{\varepsilon |n|} \rightarrow ry = u - \varepsilon |n|$$

$$y = \frac{u - \varepsilon |n|}{r}$$

$$a = \frac{1}{4}, b = -\frac{3}{4} \quad ab = -\frac{3}{16}$$

$$\underbrace{f(f^{-1}(u))}_{u}, f^{-1}(u) \in \mu \rightarrow f^{-1}(u) = \dots$$

$$\frac{r_{u+E}}{r+m} \xrightarrow[\sigma_{\text{sub}}]{r_s - 1} -10 = \frac{10}{r+m} \Rightarrow \underline{m = -r} \quad f(-), \frac{f}{-r}$$

(8)

$$y = \frac{2u-13}{1-u} \xrightarrow[\text{مقدار نسبت به } u]{\text{عبر نسبت به } u} y = \frac{-2u-13}{1+u} \xrightarrow[\text{راست}]{\text{مقدار نسبت به } u} y = \frac{2u+3}{1+u} \quad (9)$$

$$y = \frac{2(u-2)+13}{(u-2)+1} \xrightarrow[\text{مقدار نسبت به } u]{\text{عبر نسبت به } u} y = \frac{2u+9}{u-1} - 2 = f = \frac{2u+4}{u-1}$$

$$f^{-1}, f \text{ و } f \Rightarrow \frac{2u+4}{u-1} = x \quad 2u+4 = x^2 - x \Rightarrow x^2 - 2x - 4$$

$f(u) = u$ $\boxed{x} = \frac{1 \pm \sqrt{17}}{2}$

$$[y] = [x + \varepsilon(u)] \quad [y] = \omega(u) \quad (10)$$

$$y = x + \varepsilon(u) \xrightarrow[\text{مقدار نسبت به } u]{\text{عبر نسبت به } u} x = y + \underbrace{\varepsilon(y)}_{\omega(u)} \Rightarrow x = y + 2 \cdot [u]$$

$f^{-1}(u) = y$

$$y = x - 2 \cdot [u] \quad f = g(u) = x + \varepsilon(u) = x + 2[u] = 2\varepsilon(u)$$

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