

18, 15

بازدم سپهر

سپهر رشیدی

1401, 5/21

Subject:

Year:

Month:

Date:

$$2x^2 - \varepsilon x + y^2 + 4y + 11 = 0 \quad \text{نقطه} \leftarrow 2x^2 + y^2 - \varepsilon x + 4y + 11 = 0 \quad (1)$$

$$(y+2)^2 + (\sqrt{2}x - \sqrt{2})^2 = 0 \quad \boxed{11 = 9 + 2 = 11} \quad (2)$$

(a) $f(1)$ می باشد $f(x) = \begin{cases} x^2 + \varepsilon x & ; x > a \\ x + a + 2 & ; x \leq a \end{cases}$ (3)

$$x = a \Rightarrow a^2 + \varepsilon a = \underbrace{a + a + 2}_{2a} \Rightarrow a^2 + a - 2 = 0 \quad (4)$$

$$(a-1)(a+2) = 0$$

$\Rightarrow \boxed{1} \rightarrow \boxed{-2}$

$a \begin{cases} \rightarrow 1 \checkmark \\ \rightarrow 2 \text{ \%} \end{cases}$

$\boxed{a} = 0$

$f(1) = (1) + \varepsilon$

$\neq 5 \checkmark$

$a+b$ $f(x) = \begin{cases} 2x^2 - b & ; |x+1| \geq 2 \\ a + 2x & ; -2 \leq x \leq -1 \end{cases}$ (5)

$$x = -2 \Rightarrow -4 + a = 11 - b \Rightarrow \boxed{a+b = 15} \quad (6)$$

$\frac{b}{a}$ $\{2\}$ $y = \sqrt{4x-a} + \sqrt{b-2x}$ (7)

$$4x-a \geq 0 \rightarrow 4x \geq a \quad |x-a| \geq 0 \quad \frac{4}{12} \left(\frac{1}{3} \right)$$

$$b-2x \geq 0 \rightarrow b \geq 2x \quad b-4 \geq 0 \quad b \geq 4 \quad (8)$$

SEVIL

$$b^2 - 4ac \leq \varepsilon - \varepsilon_0 \varepsilon > a$$

$$149 - \varepsilon x^2 y \leq$$

Subject: $-\frac{1}{2}$

Year: _____

Month: _____

Date: _____

4

$$149 - \varepsilon x^2 y \leq$$

$$y = \sqrt{\frac{u+1}{|u-3|}} + \sqrt{\frac{4-u}{u^2+2u+2}}$$

$3 \neq 5$

$(u \rightarrow 3)$

دالة D_f (5)

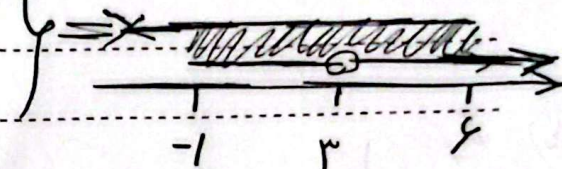
$$-1 \quad 3 \rightarrow$$

$$I = [-1, +\infty) - \{3\}$$

$$I = (-\infty, 4]$$

$$+ \quad \phi \quad -$$

(4)



$$D_f = [-1, 4] - \{3\}$$

$$y = \sqrt{x-3} + \sqrt{3-x}$$

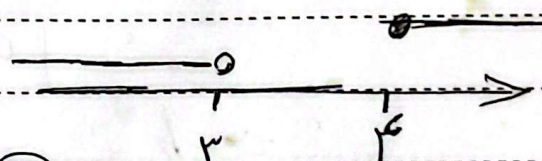
$$[u] - \varepsilon \geq 0$$

$$3 - [u] \geq 0$$

$$D_f = \{\emptyset\}$$

$$[u] \geq \varepsilon$$

$$3 \geq [u] \rightarrow 3 > u$$



$$y = \sqrt{u^2 - u - 4} \rightarrow (u-3)(u+2)$$

(4)

$$\sqrt{u^2 - 13u^2 + 24} \rightarrow u^2 \leq 6 \rightarrow t^2 - 13t + 24 \geq 0$$

$$u^2 \geq 2 \Rightarrow \pm 2$$

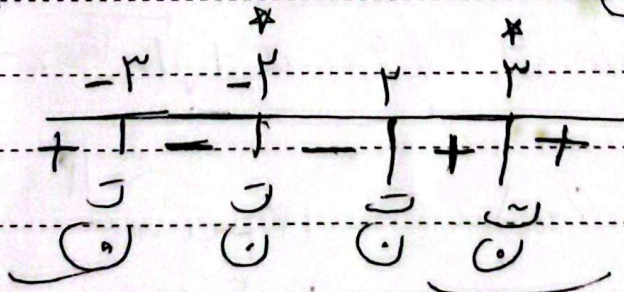
$$(t-2)(t-9) \geq 0$$

$$2 \Rightarrow 9 \Rightarrow \pm 2$$

$$\Rightarrow 2 \quad \Rightarrow 9$$

(4)

$$u^2 \geq 2$$



$$D_f = (-\infty, -3) \cup (2, +\infty) - \{3\}$$

SEVIL

$D_f = (-\infty, -3) \cup [-2, -1) \cup [1, 2) \cup [3, +\infty)$

Subject: Year: 9/10 Month: Date:

$y = \frac{\sqrt{u^3 - 2u^2 - 2u + 4}}{\sqrt{u^3 + 2u^2 - 2u - 4}} \rightarrow (u-1)(u^2 - u - 4) \cdot \frac{+u^2 \neq u}{-4} \cdot \frac{-4u+4}{+4u-4}$

$\frac{(u-1)(u-3)(u+2)}{(u+1)(u-2)(u+3)}$

$+1 - \phi +1 - \phi +1 - \phi +1 - \phi +$

$\rightarrow (u+1)(u^2 + u - 4)$

$y = \sqrt{[-u] - 2} \rightarrow [-u] - 2 \geq 0 \rightarrow [-u] \geq 2 \quad (V)$

$[u] \leq -1 \rightarrow u \leq -1 \quad D_f = (-\infty, -1)$

$y = \frac{2u^2 + 4}{[u]^2 - 2[u] - 3} \quad [u]^2 - 2[u] - 3 \neq 0$

$[u] = y \quad y^2 - 2y - 3 \neq 0 \rightarrow (y-3)(y+1)$

$(3) \quad (-1)$

$D_f = [1, 2) \cup [3, +\infty)$

$D_f = [1, 2) \cup [3, +\infty)$

$y = \frac{\cos u + 1}{\tan u + 1} \quad \tan u \neq -1 \rightarrow u \neq k\pi + \frac{3\pi}{2}$

$\cos u \neq 0 \rightarrow u \neq k\pi + \frac{\pi}{2}$

$\tan u + 1 \neq 0 \rightarrow \tan u \neq -1 \rightarrow u \neq k\pi + \frac{3\pi}{2}$

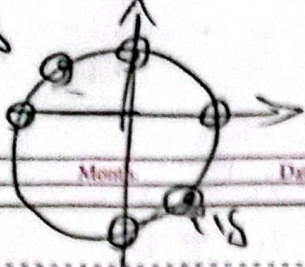
SEVIL

Subject:

Year:

Month:

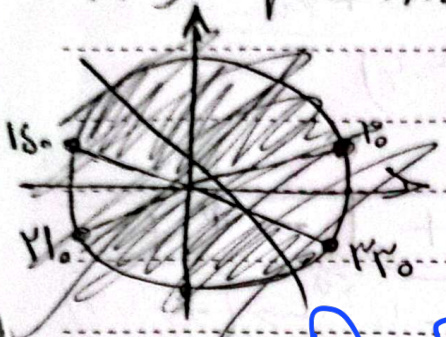
Date:



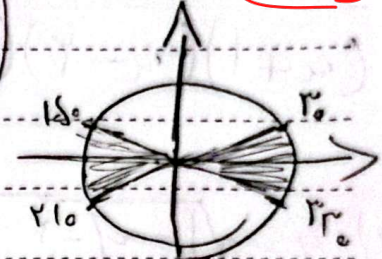
$$Df = IR - \left\{ k\pi, k\pi + \frac{\pi}{2}, k\pi + \frac{3\pi}{2} \right\}$$

2 ✓

$$y = \sqrt{1 - \varepsilon \sin^2 u} \rightarrow 1 - \varepsilon \sin^2 u > 0 \rightarrow 1 > \varepsilon \sin^2 u$$



$$\left[\frac{1}{2} > \sin u \geq -\frac{1}{2} \right]$$



1, 5

$$D = \left[k\pi - \frac{\pi}{4}, k\pi + \frac{\pi}{4} \right]$$

$$الف) y = \sqrt{1 - \log_{\frac{1}{r}}^{n-1}} \quad 1 - \log_{\frac{1}{r}}^{n-1} \geq 0$$

$$n-1 > 0 \rightarrow n > 1 \quad n-1 \geq \frac{1}{r} \rightarrow n \geq \frac{1+r}{r}$$

معرف 1 < n < 2

$$b = a \quad \log_{\frac{1}{r}} a = r \quad \log_b a = c \quad \left(\frac{1}{r} \right) = n-1$$

$$u = \frac{r}{r}$$

$$Df = \left(\log_{\frac{r}{r}} \right) \left[\frac{r}{r}, +\infty \right)$$

1, 5

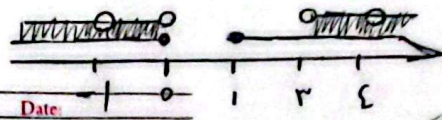
$$y = \frac{\sqrt{u^2 - u}}{1 - \log_{\frac{r}{r}} u}$$

$$u^2 - u > 0 \rightarrow u(u-1) > 0$$

$$u^2 - u > 0 \rightarrow u(u-1) > 0$$

$$1 - \log_{\frac{r}{r}} u^2 - r u \neq 0 \quad 1 \neq \log_{\frac{r}{r}} u^2 - r u \quad \varepsilon \neq u^2 - r u$$

$$u^2 - r u - \varepsilon \neq 0 \quad (u+1)(u-r) \neq 0$$



$$D_f = (-\infty, 0) \cup (3, +\infty) \\ - [2, 3] \quad \checkmark$$

$$الف) y = \sqrt{2x - x^2} \Rightarrow 2x - x^2 \geq 1 \quad (10) \quad (2)$$

$$2x - x^2 \geq 1 \Rightarrow x^2 - 2x + 1 \leq 0 \Rightarrow (x-1)^2 \leq 0$$

$$D_f = [1, 3] \quad \checkmark \quad + \quad - \quad + \quad \Rightarrow (x-1)(x-3)$$

$$ب) y = \left(\frac{2x+5}{2x+3} \right)! \quad (0)! \Rightarrow 0 \in \mathbb{N}$$

$$\frac{2x+5}{2x+3} \in \mathbb{N} \quad - \quad \frac{5\mathbb{N}-5}{2\mathbb{N}-3} = \left[\frac{5-5\mathbb{N}}{2\mathbb{N}-3} \right]$$

$$D_f = \left\{ n \mid n = \frac{5-5k}{2k-3}, k \in \mathbb{N} \right\}$$

$$\frac{5-5k}{2k-3} \quad \checkmark$$

اسرار ازل را نه دانی و نه من این سخن میگوید نه توانی و نه من

مست در پرتو نعلین منو قو سون
چوین پرتو بر افند نه توانی و نه من

نه خدای من