

Subject :

Year. Month. Date. ()

1f, 1a

توليف ضار، 0 (a)

ن باره

نيايش زلدي

$1 \rightarrow 1 - a$

$\mu \rightarrow 1 - \frac{a}{\mu}$

$1 - \frac{a}{\mu} + a = \frac{-a + \mu a}{\mu} = \frac{\mu a}{\mu}$

(1)

$\frac{1 - \frac{a}{\mu} - (1 - a)}{\mu} = \frac{a}{\mu}$

(1)

$1 - \frac{a}{x}$

توليف

$\mu x^{\mu-1}$

$\rightarrow \frac{x}{x^{\mu}} = \frac{\mu a}{\mu}$

$x^{\mu} = \frac{\mu}{\mu}$

$x = \pm \sqrt{\frac{\mu}{\mu}}$

$1 - ax^{-1}$

$f'(x) = \frac{a}{x^2} \rightarrow \frac{a}{\mu} = \frac{a}{x^2} \rightarrow x^2 = \mu \rightarrow \begin{cases} x = -\sqrt{\mu} \\ x = \sqrt{\mu} \end{cases}$

$\mu ax - a = 1$

$\epsilon ax = \epsilon$

$x = \frac{\mu}{\mu a}$

(2)

معمولاً؛ کم

$y = x^2$

$\mu x \left(\frac{a}{\mu a^2} \right) - a \left(\frac{\mu}{\mu a} \right) + 11a = \frac{\mu}{\mu a}$

$-\frac{\mu}{\mu a}$

$\frac{a}{\mu a} - \frac{a}{\mu a} + 11a = \frac{\mu}{\mu a}$

$-\frac{\mu}{a} + 11a = \frac{\mu}{\mu a} \rightarrow \mu a$

(2)

$-9 + \mu a^2 = \mu$

$\mu a^2 = 9$

$a^2 = \frac{1}{\mu}$

$a = \pm \frac{1}{\mu}$

$a = -\frac{1}{\mu}$

$3 \pm \frac{1}{\mu}$

✓

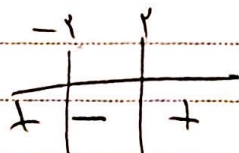
$\mu x^{\mu} - 12 = 0$

$\mu x^{\mu} = 12$

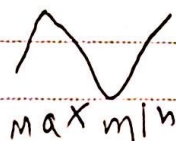
$x^{\mu} = \frac{12}{\mu}$

$x = \pm \frac{12}{\mu}$

(3)



$\mu \rightarrow 1 - \mu + \mu = 1 - \mu = -\frac{12}{\mu}$



(2)

$$px^2 + pa x - pb = 0 \quad x=0 \Rightarrow k=0 \Rightarrow b=0 \quad \textcircled{A}$$

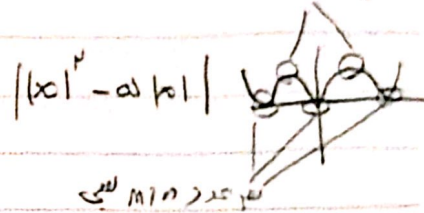
$$px^2 + pa x = 0 \quad x \begin{pmatrix} p & pa \\ 0 & -pb \end{pmatrix} = 0 \quad -p + pa = 0 \quad a = p$$

$$y = x^p + px^q - p \quad \begin{pmatrix} 0 & 9 & -9 \\ -9 & 0 & 0 \end{pmatrix} \quad \sqrt{9+16} = \sqrt{25} = 5$$

$$y = |x^p - a| x \quad \textcircled{A}$$

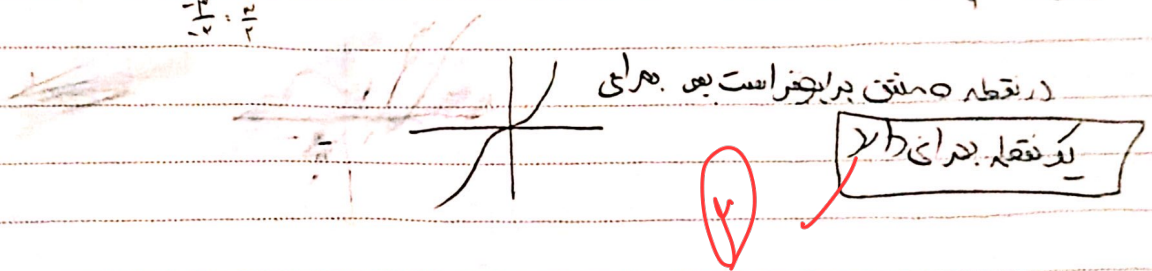


$$\frac{p}{m} = \frac{p}{p} \quad n = p \rightarrow \frac{n}{m} = \frac{p}{p}$$



$$f(x) = x(|x| + p) \quad \textcircled{A}$$

$$\begin{aligned} x \geq 0 &\rightarrow x^2 + px & px + p = 0 &\rightarrow x = -\frac{p}{1} & \text{غ} & \text{و} & \text{ق} \\ x < 0 &\rightarrow -x^2 + px & -px + p = 0 &\rightarrow -px = -p & x = \frac{p}{1} & \text{غ} & \text{و} & \text{ق} \end{aligned}$$



Subject:

Year:

Month:

Date:

$$x \in [0, a] \rightarrow |u-a| = -(u-a) \rightarrow f(u) = -\sqrt{a^p(u-a)} = -a^{\frac{p}{2}} + au^{\frac{p}{2}}$$

$$f'(u) = -\frac{p}{2} a^{\frac{p}{2}} + \frac{p}{2} au^{-\frac{p}{2}} = 0 \rightarrow \frac{1}{2} a^{-\frac{p}{2}} (-\omega a + \omega a) = 0 \rightarrow \begin{cases} x = 0 \\ x = \frac{2}{p} a \rightarrow \max \checkmark \end{cases}$$

$$\sqrt[p]{x^p} (a-x) \xrightarrow{\text{Cain}} \frac{a-x}{\sqrt[p]{x^p}} + -\sqrt[p]{x^p} = 0 \quad (\checkmark)$$

$$a-x = \sqrt[p]{x^p} \quad a = \sqrt[p]{x^p} \quad 0 \rightarrow 0$$

$$\sqrt[p]{x^p} (x - \sqrt[p]{x^p}) \Rightarrow \sqrt[p]{x^p} (\sqrt[p]{x^p}) = \frac{p}{2} \quad \sqrt[p]{x^p} \times \sqrt[p]{x^p} \times x = \frac{p}{2}$$

$$x \geq 0 \quad f(\text{max}) = \frac{1}{2} a \rightarrow f\left(\frac{2}{p} a\right) = \frac{p}{2} \rightarrow -\sqrt[p]{\frac{p}{2} a^p} \left(\frac{2}{p} a - a\right) = \frac{p}{2} \rightarrow a x \sqrt[p]{\frac{p}{2} a^p} = \frac{p}{2}$$

$$\sqrt[p]{x^p} = \frac{p}{2} \quad \sqrt[p]{x^p} = \frac{1}{\sqrt[p]{x^p}} \quad a = \sqrt[p]{x^p} \quad x = \frac{1}{\sqrt[p]{x^p}}$$

$$\sqrt[p]{x^p} = \frac{p}{2} \quad \sqrt[p]{x^p} = \frac{1}{\sqrt[p]{x^p}} = x^{-\frac{p}{2}} = x^{-\frac{p}{2}} = \frac{1}{x^{\frac{p}{2}}} = \frac{1}{x^{\frac{p}{2}}} = \frac{1}{x^{\frac{p}{2}}}$$

$$\frac{1}{\sqrt[p]{x^p}} = \frac{1}{x^{\frac{p}{2}}} = \frac{1}{x^{\frac{p}{2}}} = \frac{1}{x^{\frac{p}{2}}} = \frac{1}{x^{\frac{p}{2}}} = \frac{1}{x^{\frac{p}{2}}}$$

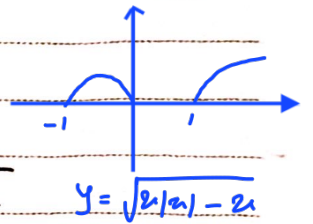
$$\frac{1}{\sqrt[p]{x^p}} = \frac{1}{x^{\frac{p}{2}}} = \frac{1}{x^{\frac{p}{2}}} = \frac{1}{x^{\frac{p}{2}}} = \frac{1}{x^{\frac{p}{2}}} = \frac{1}{x^{\frac{p}{2}}}$$

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

$$x - x \geq 0 \quad x(x-1) \geq 0$$

$$x \geq 0 \quad \sqrt{x^2 - x} \rightarrow x \geq 1 \quad \text{I}$$

$$-1 \leq x \leq 0 \quad \sqrt{-x^2 - x} \rightarrow -1 \leq x \leq 0 \quad \text{II}$$



$$-x^2 - x \geq 0 \quad x^2 + x \leq 0$$

$$x(x+1) \leq 0$$

$$-1 / -\frac{1}{p} / 1 / 0 \leftarrow \text{نقاط}$$

$$\text{I} \text{ Cain} \rightarrow \sqrt{x^2 - x} = 0$$

$$m = 0$$

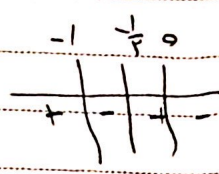
$$n = 1$$

$$k = p$$

$$\sqrt{x^2 - x} = 0$$

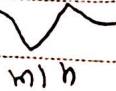
$$x(x-1) = 0$$

$$\text{II} \text{ Cain} \rightarrow \frac{-4x-1}{\sqrt{-x^2-x}} = 0$$



$$\frac{(f(x_0)) + 1}{f - 1} = \frac{1}{\frac{p}{2}}$$

$$-x(x+1)$$



P4PCO

(نقاط) $k = p$ و (max) $m = 1$ و (min) $n = 0$

$$\frac{km+n}{k-n} = \frac{p \cdot 1 + 0}{p - 0} = \frac{p}{p} = 1$$

$f(x) < 0 \rightarrow \text{ad-bc} < 0 \rightarrow m^2 m - r < 0 \rightarrow (m-r)(m+r) < 0 \rightarrow -1 < r < m, m+r > 0 \rightarrow -1 < r < r, (I)$
 $\text{عوضه } \frac{1}{x^2} = x = 1-m < 1 \rightarrow m > 0, (II) \quad (I) \wedge (II) \rightarrow m=0, 1$

Subject: _____
 Year: _____ Month: _____ Date: () ()

$$y' = \frac{m x + y}{x + m - 1} \quad y' = \frac{m(m-1) - y}{(x + (m-1))^{m-1}} < 0$$

$m=1 \rightarrow \frac{m-1}{m-m-1} = \frac{0}{-1} = 0$
 $m=2 \rightarrow \frac{m-1}{m-m-1} = \frac{1}{-1} = -1$
 $m > 2 \rightarrow \frac{m-1}{m-m-1} = \frac{m-1}{-1} = 1-m$

I

$$x > 0 \quad \frac{x}{1-x^2} \quad y' \rightarrow \frac{1(1-x^2) - (-1x^2)}{(1-x^2)^2} = 0$$

$$x < 0 \quad \frac{x}{1+x^2} \quad y' \rightarrow \frac{1(1+x^2) - px^2}{(1+x^2)^2} = 0$$

$\text{بص } \frac{1}{1-x^2} = 0 \rightarrow 1-x^2 = 0 \rightarrow x^2 = 1 \rightarrow x = \pm 1$

II

$$1+x^m - y x^p = 0 \quad | -x^p = 0 \quad x \rightarrow \begin{matrix} 1 \\ -1 \end{matrix}$$

$\text{مساوی } \rightarrow \text{مساوی است}$

مساوی $\leftarrow \begin{matrix} 1 \\ -1 \end{matrix} \rightarrow \text{D}$

$D_{f(x)} = 1 - a|x| = 0 \rightarrow |a|x| = 1 \rightarrow \begin{cases} a > 0 & a^x = 1 \rightarrow a = 1 \checkmark \\ a < 0 & -a^x = 1 \rightarrow a^x = -1 \end{cases} \rightarrow D_f = \mathbb{R} - \{1\}$