

۲۱ شهریور ۱۴۰۳

پایه نهم ریاضی - دوره اول، فاسی انعام ریاضی، ریاضی

@Al-Ramshini

$$\frac{r}{x}, \frac{a}{2x+1}, \frac{r}{x-1}, \frac{a}{x+1}$$

$$\frac{2x+1}{x} = \frac{x+1}{x-1} \Rightarrow x^2 - 2x - 1 = 0$$

$$p = -1$$

$$(2x+1)(x-1) = x(x+1)$$

①
نزدیک

$$ax^2 + bx + c = 0$$

$$x_s = \frac{-b}{2a}$$

$$y_s = c - ax_s^2 \Rightarrow x_s = \frac{-a}{-1.0} = 1.0 \Rightarrow a = 2.0$$

$$y_s = -1 + 2(1.0)^2 = \frac{94}{F} = 23.12$$

③
نزدیک

$$2-x^2 = (x^2+x+1)q(x) + r(x)$$

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

$$r(x) = 2-x^2 = 2 - (-x-1) = x+3$$

$$1 + 3 = 4$$

$$F_{نزدیک}$$

④

$$\Delta > 0 \rightarrow m < \frac{9}{\lambda} \quad F, \Delta, \varepsilon$$

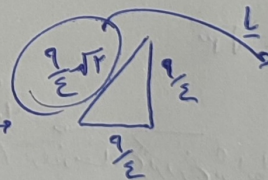
$$m-3 > 0 \Rightarrow m > 3$$

$$F_{نزدیک}$$

⑤

$$y = 3x - 9$$

$$-x = 3x - 9 \Rightarrow x = \frac{9}{4}$$



$$\frac{9}{2\sqrt{2}}$$

$$F_{نزدیک}$$

⑥

$$y = \frac{x-4}{x}$$

$$m_{CB} = \frac{\frac{x-4}{x}}{x-4}$$

$$m_{CB} \cdot m_{AB} = -1 \Rightarrow$$

$$1 \cdot x^2 - 9 \cdot x + 18 = 0$$

$$x^2 - 9x + 18 = 0$$

$$x = 2, 4$$

$$x = 2 \quad F_{نزدیک}$$

$$A(2, 2)$$

$$C(4, -1)$$

$$m_{AB} = \frac{\frac{x-4}{x}}{x-2}$$

$$a=0 \quad -\sqrt{r} \neq -a$$

$$a \neq 0 \quad r(1-|a|)-1=(r+|a|)^2-(r+|a|)-\sqrt{r} \Rightarrow a=\pm 1$$

نرسیده

۸

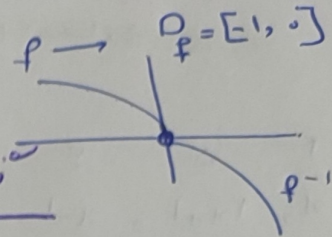
$$\frac{f(x)}{\sqrt{1-\sqrt{1+x}}} = \frac{f^{-1}(x)}{(x^2-1)^2-1}$$

$x=0$
نرسیده

$x=1$
نرسیده

$$D_f = [-1, 0]$$

نقطه



۹

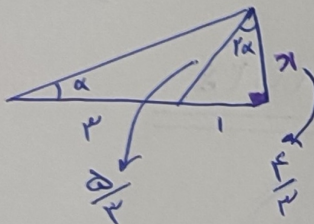
$$\frac{(1-x)}{1} = 1 \Rightarrow (1-x)^2 = 1 \Rightarrow x = -1$$

$$\frac{1}{(1-x)^2} = (1-x)^2$$

$$\log_{\sqrt{r}}^1 = \log_{\frac{1}{\sqrt{r}}} r^2 = \frac{2}{\frac{1}{\sqrt{r}}} \log_r r = \underline{\underline{2}}$$

نرسیده

۱۰



$$\tan 2\alpha = \frac{r \tan \alpha}{1 - \tan^2 \alpha} \Rightarrow \frac{1}{x} = \frac{r \times \frac{x}{r}}{1 - (\frac{x}{r})^2} = \frac{rx}{1-x^2} \Rightarrow 9x^2 = 14 \Rightarrow x = \frac{r}{p}$$

$$\cos 2\alpha = \frac{r/r}{2/r} = \frac{r}{2} \quad \text{نرسیده}$$

۱۱

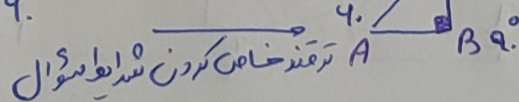
$$r(1-\cos x) + a \cos x = \varepsilon$$

$$\cos x(a-r) = 1 \Rightarrow \cos x = \frac{1}{a-r}$$

$$r - r \cos x + a \cos x = \varepsilon \Rightarrow$$

$$1 + \cot^2 \alpha = \frac{1}{\sin^2 \alpha}, \quad 1 + \tan^2 \alpha = \frac{1}{\cos^2 \alpha} \Rightarrow \tan^2 \alpha = a-r \Rightarrow \cot^2 \alpha = \frac{1}{a-r} \quad \text{نرسیده}$$

$$\tan(B-C) = \sqrt{3}$$



$$\frac{1 - r \cos(B+C)}{r \sin B \cos C} = \frac{1 + 1}{r \times 1 \times \frac{\sqrt{3}}{r}} = \frac{1}{\sqrt{3}} \quad \text{نرسیده}$$

۱۳

$$\cos(x - \frac{\pi}{2}) = -\cos(x + \frac{\pi}{2})$$

$$\cos(x - \frac{\pi}{2}) = \cos(\pi - (x + \frac{\pi}{2}))$$

$$x - \frac{\pi}{2} = 2k\pi \pm (\pi - x - \frac{\pi}{2}) \Rightarrow$$

$$x = 2k\pi + \frac{\pi}{2} \rightarrow \text{یک مجموعه}$$

$$x = \frac{2k\pi}{2} + \frac{\pi}{2} \rightarrow \text{یک مجموعه}$$

نرسیده

۱۴