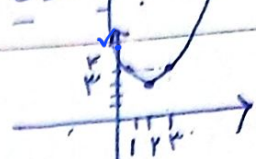


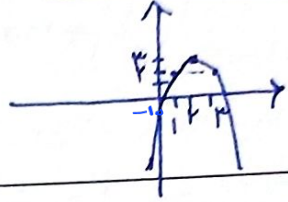
نام و نام خانوادگی مسیحی پاسخنامه تشریحی تکلیف شماره ۱۲... کلاس ... دبیر ...

۱۹,۵

$$y = x^2 - 4x + 7 \rightarrow \begin{cases} x = \frac{-b}{2a} = \frac{4}{2} = 2 \\ y = 2^2 - 4(2) + 7 = 3 \end{cases} \rightarrow \begin{array}{c|c|c} 1 & 2 & 3 \\ \hline 1 & 2 & 3 \end{array}$$



$$y = -x^2 + 4x - 1 \rightarrow \begin{cases} x = \frac{-b}{2a} = \frac{4}{-2} = -2 \\ y = -(-2)^2 + 4(-2) - 1 = -9 \end{cases} \rightarrow \begin{array}{c|c|c} 1 & 2 & 3 \\ \hline 1 & 2 & 3 \end{array}$$



۱,۵

$$\Delta > 0 \rightarrow b^2 - 4ac > 0 \rightarrow (m+1)^2 - (4)(1)(\frac{1}{m-1}) > 0 \rightarrow m^2 + 1 + \frac{1}{m-1} - \frac{4}{m-1} > 0$$

$$\Delta = 0 \rightarrow m^2 - 2m - 1 = 0 \rightarrow m = \frac{2 \pm \sqrt{4 + 4}}{2} = 1 \pm \sqrt{2}$$

$$\Delta < 0 \rightarrow m^2 - 2m - 1 < 0 \rightarrow m \in (1 - \sqrt{2}, 1 + \sqrt{2})$$

$$\Delta > 0 \rightarrow m^2 - 2m - 1 > 0 \rightarrow m \in (-\infty, 1 - \sqrt{2}) \cup (1 + \sqrt{2}, \infty)$$

$$S = \frac{-b}{a} < 0 \rightarrow \frac{m+1}{m-1} < 0 \rightarrow m \in (-1, 1)$$

$$S = \frac{-b}{a} > 0 \rightarrow \frac{m+1}{m-1} > 0 \rightarrow m \in (-\infty, -1) \cup (1, \infty)$$

$$P < 0 \rightarrow P = \frac{c}{a} < 0 \rightarrow \frac{1}{m-1} < 0 \rightarrow m < 1$$

$$\frac{-b}{2a} = -1 \rightarrow \frac{m+1}{m-1} = -1 \rightarrow m+1 = -m+1 \rightarrow 2m = 0 \rightarrow m = 0$$

$$\Delta > 0 \rightarrow (-r \sin \alpha)^2 - (r)^2 (\frac{1}{r^2}) > 0 \rightarrow r^2 \sin^2 \alpha - r > 0 \rightarrow r \sin^2 \alpha > 1$$

$$\sin^2 \alpha > 1 \rightarrow \sin \alpha > 1 \rightarrow \sin \alpha = 1 \rightarrow \alpha = \frac{\pi}{2}$$

$$\sin \alpha < -1 \rightarrow \sin \alpha = -1 \rightarrow \alpha = \frac{3\pi}{2}$$

۵

Wiederholung

(Wiederholung)

$$\frac{(x^r - rx - r)(rx^r - rx - a)}{1 - rx} \rightarrow x^r - rx - r \rightarrow (x - r)(x + r) \rightarrow (rx + 1)(x - 1)$$

$$1 - rx \rightarrow x^r - rx - 1 \rightarrow (x - a)(x + r) \rightarrow (rx - a)(x + 1)$$

$$(rx + 1)(x - r)(rx - a)(x + 1)$$

$$-1(1 - rx)(1 + rx) \rightarrow -(rx + 1)(x + 1) \rightarrow -rx^r - rx - a \rightarrow \frac{-1}{ra} = \frac{149}{149} \frac{(r - 1)(a)}{rf}$$

$$\frac{r \cdot 149}{rf} = \frac{r \cdot 149}{rc} \rightarrow \max \text{ über}$$

$$mx^r - (m + r)x - r = 0 \quad \begin{cases} S = -\frac{b}{a} \rightarrow \frac{m + r}{m} \\ P = \frac{c}{a} \rightarrow \frac{r}{m} \end{cases}$$

$$\alpha, \beta \rightarrow \text{be}, \rightarrow rS = \alpha P + v$$

$$\frac{r(m + r)}{m} = \frac{-10}{m} + v \rightarrow \frac{r(m + r)}{m} = \frac{-10 + vm}{m} \rightarrow r(m + r) = vm - 10 \rightarrow rm = 149 \rightarrow m = r$$

$$(\alpha^r + \beta^r) = S^r - rP \quad \begin{matrix} S = \frac{r + r \cdot 149}{r} = \frac{r}{r} \\ P = \frac{-10}{r} = \frac{-1}{r} \end{matrix} \quad \left(\frac{r}{r} \right)^r \cdot \left(\frac{1}{r} \right) \rightarrow \frac{1}{r} + 1 = \frac{1 + r}{r} = \frac{149}{r}$$

~~Wiederholung~~ $\frac{r\alpha + \beta}{\alpha\beta^r} / x^r - ax + r = 0$

$$S = -\frac{b}{a} = a, P = \frac{c}{a} = r \rightarrow \frac{r\alpha}{\alpha\beta^r} + \frac{\beta}{\alpha\beta^r} \rightarrow \frac{r\alpha}{\alpha\beta^r} + \frac{\beta^r}{\alpha} \rightarrow \frac{r\alpha}{\frac{1}{\alpha^r}} + \frac{\beta^r}{\alpha}$$

$$\frac{\alpha\beta}{\beta^r} = \frac{\alpha}{\alpha^r} \rightarrow \frac{\beta}{\alpha^{r-1}}$$

$$\frac{r\alpha^r}{\alpha^r} + \frac{\beta^r}{\alpha} \rightarrow \frac{r + \beta^r}{\alpha} \rightarrow \frac{S^r - rPS}{\alpha} \rightarrow \frac{149 - r \cdot 1}{\alpha} = 149$$

- r r r r

$$y_1 = a_1 x_1 + b_1 x_2 + c_1$$

$$C = \begin{bmatrix} c_1 \\ c_2 \end{bmatrix}$$

$$\begin{aligned} x_1 = r &\rightarrow y = 1r \\ x_2 = -r &\rightarrow y = -r \end{aligned}$$

(3)

$$\begin{bmatrix} 1 \\ r \\ -r \end{bmatrix} \rightarrow \begin{cases} 1r = ka + rb + c \\ r = a - rb + c \end{cases} \rightarrow \begin{cases} ra + b = d \\ ra - b = 0 \end{cases}$$

$$\frac{ra + b}{ra - b} = \frac{d}{0}$$

جواب
 $x = r = -\frac{r}{r}$
 $y = -r$

$$\begin{bmatrix} a = 1 \\ b = r \end{bmatrix}$$

$$\begin{bmatrix} x = -\frac{r}{r} \end{bmatrix}$$

$$y = 2x^2 + (m+1)x + m + 4 \quad y=x \rightarrow x = 2x^2 + (m+1)x + m + 4$$

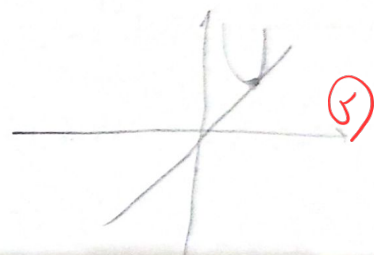
$$2x^2 + mx + m + 4 = 0 \rightarrow \text{با } \Delta \text{ جواب می یابیم}$$

$$\Delta = m^2 - 4(2)(m+4) = 0 \rightarrow m^2 - 8m - 16 = 0$$

$$(m-12)(m+4) = 0 \rightarrow \begin{cases} m=12 \\ m=-4 \end{cases}$$

$$m=12 \rightarrow 2x^2 + 12x + 16 = 0$$

$$x^2 + 4x + 4 = 0 \rightarrow x = -\frac{4}{2} = -2x \quad \text{با در نظر گرفتن اصل بار}$$



1.