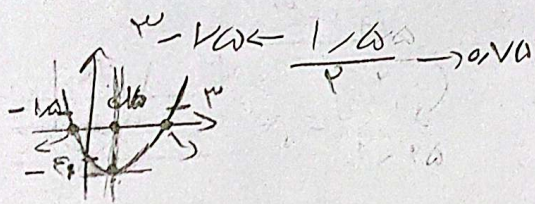


نام و نام خانوادگی (نام) (نام خانوادگی) پاسخنامه تشریحی تکلیف شماره ۲۰۲۰ ... کلاس ... دهم ...

$$\begin{aligned} B^2 &= \omega B - 2 \\ \alpha + \beta &= \omega \\ \alpha &= \omega - \beta \\ f\alpha &= f(\omega - \beta) = 20f\beta \\ B^2 &= \omega B - 2 \\ B^3 &= B(\omega B - 2) = 23B - 10 \end{aligned}$$

$$\begin{aligned} B^3 &= B(23B - 10) = 105B - 46 \\ B^4 &= B(105B - 46) = 479B - 210 \\ f\alpha + \beta^4 &= 479\omega B - 190 \\ \omega B^2 &= \omega(\omega B - 2) = 11\omega B - 10 \\ \frac{\omega(95B - 41)}{\omega(11B - 2)} &= \frac{95B - 41}{11B - 2} \rightarrow 19 \end{aligned}$$



$$\begin{aligned} y &= A(x - x_5)^p + y_5 \\ -f &= A(0 - 0.18)^p + y_5 \end{aligned}$$

(۱, ۱, ۷۵)

$$\frac{50^2 - 4ac}{1a} \rightarrow \frac{(PK)^2 - P_0}{1} = \sqrt{4K^2 - P_0} \rightarrow 2\sqrt{K^2 - \omega} = \frac{f}{p} K$$

$$\begin{aligned} 4\sqrt{K^2 - \omega} &= \frac{f}{p} K \\ \sqrt{K^2 - \omega} &= \frac{f}{4p} K \\ K^2 - \omega &= \left(\frac{f}{4p}\right)^2 K^2 \end{aligned}$$

$$\left[\frac{K^2}{p}\right] \rightarrow \left[\frac{4}{p}\right] \rightarrow [f/a] \rightarrow (f/a)$$

$$\begin{aligned} y &= 1 - 1 \\ \frac{-a - f^2}{p} &= -1 \\ \frac{-b}{pa} &= -1 \rightarrow \frac{b}{pa} = 1 \quad [b = pa] \\ y &= ax^2 + pa x + c \rightarrow 1 = +a - \frac{a}{pa} + c \\ \alpha^2 + \beta^2 &= \omega \\ 5^2 + 1^2 &= \omega \rightarrow (pa)^2 + 2(1+a) = \omega \\ 25 + 1 &= \omega \rightarrow 26 = \omega \\ 25 + 1 + 2 &= \omega \end{aligned}$$

(۱, ۷۵)

$$\begin{aligned} \alpha < f/a \quad \beta < f/a \quad -a^2 + a\alpha + m &= 0 \quad a = -1 \quad b = \omega \quad c = m \\ \omega \pm \sqrt{pa + fm} &< f/a \rightarrow \sqrt{pa + fm} < f/a \quad pa + fm < 1/4 \\ \frac{\omega \pm \sqrt{pa + fm}}{p} &< f/a \quad fm < -9 \quad m < -\frac{9}{f} \quad pa + fm \geq 0 \quad m \geq -\frac{pa}{f} \\ -\frac{pa}{f} &\leq m < -\frac{9}{f} \end{aligned}$$

(۱, ۷۵)

$$a = \frac{-1}{pm} = \frac{g}{m}$$

$$y = m\left(\frac{g}{m}\right)^2 - 1\left(\frac{g}{m}\right) + \omega m - 1 = \frac{-g^2}{m} + \omega m - 1$$

$$g_{min} = 1 \rightarrow \frac{-g^2}{m} + \omega m - 1 = 1 \rightarrow \frac{-g^2}{m} + \omega = 2 \rightarrow -g^2 + \omega m^2 = 2m$$

$$\omega m^2 - 2m - 2g = 0 \quad \Delta \rightarrow a + \sqrt{b} = \sqrt{c} \quad \sqrt{4g} = 2\sqrt{g} \quad m = \frac{-b \pm \sqrt{\Delta}}{2a}$$

$$\omega r + \omega(pa + r) + 2a - 1 = 0 \quad \Delta = (pa + r)^2 - 4r(pa - 1) = pa^2 + 2ar + r^2 - 4pa + 4r$$

$$ea^2 = \Delta \quad \frac{-b \pm \sqrt{\Delta}}{2a} \rightarrow \frac{-pa - r \pm \sqrt{pa^2 + 2ar + r^2 - 4pa + 4r}}{2a}$$

$$\frac{-pa - r - pa}{2} = \frac{-2pa - r}{2} = -pa - \frac{r}{2}$$

$$\frac{(-pa - 1) + (-1)}{2} = a \rightarrow \frac{-pa - r}{2} = a$$

$$-a - 1 = a \rightarrow -1 = 2a \rightarrow a = -\frac{1}{2}$$

$$S = -V \quad P = -\omega$$

$$r(r\omega) =$$

$$\alpha^2 + \beta^2 + s^2 = -r\omega$$

$$(\alpha^2 + \beta^2 - s^2)^2 = p_x^2$$

$$K\alpha^2 - 5\alpha - 4 = -5\alpha - 4 \quad K\alpha^2 - r = 0 \quad \delta^2 - 4ac = 0$$

$$\frac{-\Delta}{4a} \rightarrow 0 \quad 0 - 1K = 0 \quad K = 0$$

$$-m\alpha^2 + m\alpha + 1 = -m - \alpha \Rightarrow m\alpha^2 - (m+1)\alpha - m + 1 = 0$$

$$\Delta = (-(m+1))^2 - 4m(-m+1) = (m+1)^2 + 4m(m-1) = (m+1)(m+5m+1)$$

$$(m+1)(\omega m + 1) < 0 \Rightarrow -1 < m < -\frac{1}{\omega} \rightarrow \alpha - 1 = 0 \rightarrow \alpha = 1$$

$$x_5 = \frac{3-a}{r} = -1 \leadsto -\frac{b}{ra} = -1 \leadsto -\frac{b}{a} = -r = 5$$

طول راس سهمی میانه‌ی دوقطبی هم عرض است (مثل سهمی! تصور کنید ...)

$$y_5 = (y-1) = a(n+1)^2 \leadsto y = an^2 + 2an + a + 1$$

$$a^2 + b^2 = 5^2 - 2p \leadsto (-2)^2 - 2p = 4 \rightarrow p = -\frac{1}{2} \leadsto \frac{a+1}{a} = -\frac{1}{2} \leadsto 2a+2=-a \rightarrow a = -\frac{4}{3}$$

$$\text{محض ازبدا} = a-1 \leadsto -\frac{4}{3} + 1 = -\frac{1}{3}$$

$$p = \alpha\beta = 2a-1$$

$$\alpha \times \beta = a^2 \rightarrow 2a-1 = a^2 \rightarrow a^2 - 2a + 1 = 0 \rightarrow (a-1)^2 = 0 \rightarrow a = 1$$

حک کردن اینجور: $a=1$ $\rightarrow x^2 + 4x + 1 = 0 \rightarrow \Delta = 14 > 0$ ✓

$$x^2 = t \rightarrow t^2 - vt - \Delta = 0 \rightarrow t = \frac{v \pm \sqrt{49}}{2} \xrightarrow{x^2 > 0} x^2 = \frac{v + \sqrt{49}}{2}$$

$$x = \pm \sqrt{\frac{v + \sqrt{49}}{2}} \leadsto s = 0, p = -\left(\frac{v + \sqrt{49}}{2}\right)$$

$$2p^2 - \underbrace{3sp}_0 + \underbrace{2s}_0 = 2p^2 = 2\left(\frac{v + \sqrt{49}}{2}\right)^2 = \frac{1}{2}(49 + 49 + 14\sqrt{49}) = 49 + 7\sqrt{49}$$

$$x_5 = x_s = -\frac{b}{ra} = \frac{f}{rk} = \boxed{\frac{r}{k}}$$

$$y_5 = k\left(\frac{r}{k}\right)^2 - 4\left(\frac{r}{k}\right) - 4 = \frac{f}{k} - \frac{4}{k} - 4 = \boxed{-\frac{f}{k} - 4}$$

$$-\frac{f}{k} - 4 = -4\left(\frac{r}{k}\right) - 4 \leadsto \frac{f}{k} = r \rightarrow \boxed{k=2}$$

$$\text{عرض سهمی} = -\frac{f}{k} - 4 = -2 - 4 = -6$$

$$A(3, -2) \rightarrow f(3) = f(-1, 8) \leadsto \text{نقطه هم عرض هستند پس } x \text{ اکسرم بین اینی}$$

$$B(-1, 8, -2) \quad x_5 = \frac{3-1, 8}{2} = +1, 8 \leftarrow \text{در نقطه وجود دارد}$$

$$-\frac{b}{2a} = +\frac{1, 8}{1} \leadsto \frac{b}{a} = 8 = 1, 8$$