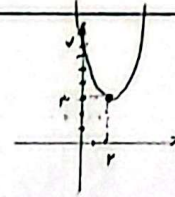
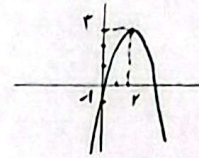


نام و نام خانوادگی: کلاس: (۱۲) پاسخنانه تشریحی تکلیف شماره: (۱۲) (پیشینه)

الف) رأس کمی: $-\frac{b}{2a} = \frac{f}{r} = r \rightarrow y = (r)^2 - 4(r) + 7 = r^2 - 4r + 7 = 1$



ب) رأس کمی: $-\frac{b}{2a} = \frac{-f}{-r} = r \rightarrow y = -(r)^2 + 4(r) - 1 = -r^2 + 4r - 1 = 1$



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الف) $\Delta > 0 \rightarrow (m+1)^2 - 4(\frac{1}{2}m+2)(r) > 0 \rightarrow m^2 + 2m + 1 - 4m - 8 = m^2 - 2m - 7 > 0$
 $\rightarrow m \in [(-\infty, -3) \cup (5, +\infty)]$

ب) $\Delta = 0 \rightarrow m^2 - 2m - 7 = (m-5)(m+3) = 0 \rightarrow m = 5, -3$

ج) $\Delta < 0 \rightarrow m^2 - 2m - 7 < 0 \rightarrow m \in (-3, 5)$

د) $\Delta \geq 0 \rightarrow m \in [(-\infty, -3] \cup [5, +\infty)]$

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الف) (I) $\Delta > 0 \rightarrow \Delta = (-2m-3)^2 - 4(1.0)(m-2) = 4m^2 + 4 + 12m - 4m + 8 = 4m^2 + 8m + 12$

(II) $P > 0 \rightarrow 4m^2 + 8m + 12 > 0 \rightarrow m^2 + 2m + 3 > 0 \rightarrow \Delta' = 4 - 12 = -8 < 0$

(III) $S < 0 \rightarrow$ چون $\Delta < 0$ و ضرایب m^2 در معادله مثبت و برابر است، معادله $\Delta > 0$ است.

$P = \frac{1.0}{m-2} \rightarrow \frac{1.0}{m-2} > 0 \rightarrow -\frac{1}{2} < m \rightarrow m \in (2, +\infty)$

$S = \frac{2m+2}{m-2} \rightarrow \frac{2m+2}{m-2} < 0 \rightarrow -\frac{1}{2} < m \rightarrow m \in (-1, 2)$

$\rightarrow (I) \cap (II) \cap (III) = \emptyset$

ب) $\Delta > 0 \rightarrow$ معادله برقرار

$S < 0 \rightarrow \frac{2m+2}{m-2} < 0 \rightarrow m \in (-1, 2)$

$P < 0 \rightarrow \frac{1.0}{m-2} < 0 \rightarrow m \in (-\infty, 2)$

$\} \text{استرال} \Rightarrow m \in (-1, 2)$

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الف) $\Delta = 4m^2 + 8m + 12 > 0$
 $4m^2 + 8m + 12 > 0 \rightarrow m^2 + 2m + 3 > 0$

$S = \frac{-1}{2} < 0 \rightarrow m > 2$
 $P = \frac{r}{-2} > 0 \rightarrow m < 2$

$a > 0 \rightarrow m > 2$
 $\Delta > 0 \rightarrow m < 2$
 $m > 2, m < 2 \rightarrow$ هیچ جوابی نیست.

$a < 0 \rightarrow m < 2$
 $\Delta < 0 \rightarrow m > 2$
 $m < 2, m > 2 \rightarrow$ هیچ جوابی نیست.

ب) $-\frac{b}{2a} = \frac{2m+2}{2m-4} = -2 \rightarrow 2m+2 = -2m+4 \rightarrow 4m = 2 \rightarrow m = \frac{1}{2}$

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$\Delta \geq 0 \rightarrow (r \sin \alpha)^2 - 4(\frac{r}{r})(\frac{r}{r}) = r^2 \sin^2 \alpha - 4 \geq 0 \rightarrow \sin^2 \alpha - 1 \geq 0 \rightarrow \sin^2 \alpha \geq 1 \rightarrow \sin \alpha = -1, 1$

$\sin \alpha = 1 \rightarrow \frac{r}{r} x^2 - 2x + \frac{r}{r} = 0 \rightarrow x^2 - 2x + 1 = 0 \Rightarrow (x-1)^2 = 0 \Rightarrow x = 1$

$\sin \alpha = -1 \rightarrow \frac{r}{r} x^2 + 2x + \frac{r}{r} = 0 \rightarrow x^2 + 2x + 1 = 0 \Rightarrow (x+1)^2 = 0 \Rightarrow x = -1$

$\sin \alpha = 1 \rightarrow x = \frac{r}{r} = 1$

$\sin \alpha = -1 \rightarrow x = -\frac{r}{r} = -1$

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$$A = x^2 - x - 1 \rightarrow A = x^2 - x - 1 = (x - 1)(x + 1) \Rightarrow A = (x - 1)(x + 1)$$

$$B = r_1 r_2 - \omega \rightarrow rB = r_2 r_1 - \omega = (r_2 - \omega)(r_2 + r) \Rightarrow B = (r_2 - \omega)(r_2 + r)$$

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

$$= -x^2 + 1x + 1 \rightarrow \text{مشتق} = -\frac{b}{2a} = \frac{-1}{-2} = \frac{1}{2}$$

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

$$r S = \Delta P + v \rightarrow r \left(\frac{m+r}{m} \right) = \Delta \left(\frac{-r}{m} \right) + v \Rightarrow \frac{r m + r}{m} = \frac{-10}{m} + v$$

$$\rightarrow \frac{1^u m + 1 + 1}{m} = v \rightarrow 1^u m + 14 = v m \rightarrow km = 14 \rightarrow m = k$$

$$a^r + b^r = S^r - rP = \left(\frac{m+r}{m}\right)^r - r\left(\frac{-r}{m}\right) = \left(\frac{r}{r}\right)^r - r\left(\frac{-r}{r}\right) = \frac{r}{r} + \frac{r}{r} = \frac{1r}{r}$$

$$\begin{aligned} \frac{F_{\alpha} + \beta^R}{\omega \beta^R} &= \frac{F_{\alpha} + \beta^R}{\omega \beta^R} \times \frac{\alpha^R}{\alpha^R} = \frac{F_{\alpha}^R + \beta^R (\alpha^R \beta^R)}{\omega \alpha^R \beta^R} \rightarrow \alpha^R \beta^R = p^R = (r)^R = r \\ \rightarrow \frac{F_{\alpha}^R + F_{\beta}^R}{r_0} &= \frac{\alpha^R + \beta^R}{\omega} = \frac{S^R - r^R p}{\omega} = \frac{120 - \frac{r^R}{\omega} (r)}{\omega} = \frac{90}{\omega} = 19 \end{aligned}$$

$y_v = r(r) + 10 = 14$
 $y_v = r(-3) + 10 = 4$

نقاط: $(2, 14), (-3, 4)$

عرض (میدان) = $K = c$

$$y_1 = a(r) \cdot b(r) + \kappa = \kappa a + r b + \epsilon = 1F \rightarrow \kappa a + r b = 1_0 \rightarrow r a + r b = \omega \rightarrow q a + r b = 1_\omega$$

$$y_1' = a(-r) + b(-r) + r = -ar - br + r = r \rightarrow -ar - br = -r \rightarrow ar + br = r$$

$$\rightarrow \begin{cases} 9a - 4b = 0 \\ 4a + 4b = 10 \end{cases} \rightarrow 10a = 10 \rightarrow a = 1, \quad 9 - 4b = 0 \rightarrow 4b = 9 \rightarrow b = \frac{9}{4}$$

$$\rightarrow y_1 = ax^r + bx + c \rightarrow \frac{-b}{ra} = \frac{-r}{r} \rightarrow \omega_{ss} \rightarrow x = -\frac{r}{r}$$

$$r_x^p + (m+1)x + m+y = x \rightarrow r_x^p + (m+1)x - x + m+y = r_x^p + mx + m+y$$

→ $\Delta = 0 \rightarrow m^2 - \underbrace{6(2)(m+4)}_{-12} = m^2 - 12m - 24 = 0$

$$= (m-12)(m+6) = 0 \rightarrow m = 12, -6$$