

۱۹، ۱۷۵
کافین

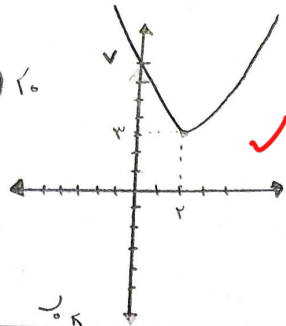
نام و نام خانوادگی: حسین جعفری
پاسخنامه تشریحی تکلیف شماره ۱۲... کلاس: یازدهم... ب

الف) $x^2 - 4x + 7$

$\Delta < 0 \Rightarrow 16 - 4(1)(7) < 0$

$x_{\min} = \frac{4}{2} = 2$

$y_{\min} = 4 - 16 + 7 = -5$

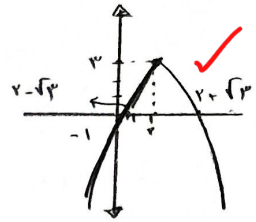


ب) $-x^2 + 4x - 1$

$\Delta > 0 \Rightarrow \frac{-4 \pm \sqrt{16}}{-2} = 2 \pm \sqrt{3}$

$x_{\max} = \frac{-4}{-2} = 2$

$y_{\max} = -4 + 16 - 1 = 11$



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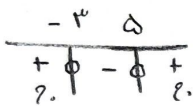
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الف)

$y = 2x^2 + (m+1)x + \frac{1}{2}m + 2 = 0$

$\Delta > 0 \Rightarrow m^2 - 2m - 15 > 0$

$(m-5)(m+3) > 0$

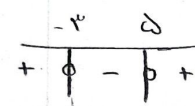


$m \in (-\infty, -3) \cup (5, +\infty)$

$y = 2x^2 + (m+1)x + \frac{1}{2}m + 2 = 0$

$\Delta = 0 \Rightarrow m^2 - 2m - 15 = 0$

$(m-5)(m+3) = 0$

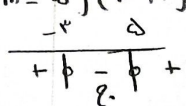


$m \in \{-3, 5\}$

ب) $\Delta < 0 \Rightarrow$

$m^2 - 2m - 15 < 0$

$(m-5)(m+3) < 0$

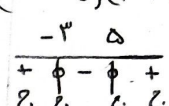


$m \in (-3, 5)$

ج) $\Delta > 0 \Rightarrow$

$m^2 - 2m - 15 > 0$

$(m-5)(m+3) > 0$



$m \in (-\infty, -3) \cup (5, +\infty)$

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$y = (m-2)x^2 - 2(m+1)x + 1 = 0$

$\Delta > 0$

$S < 0 \Rightarrow \frac{2m+2}{m-2} < 0 \Rightarrow \frac{-1}{+} \frac{2}{-} \frac{2}{+} \frac{2}{+} \text{ II}$

$P < 0 \Rightarrow \frac{1}{m-2} < 0 \Rightarrow \frac{1}{-} \frac{2}{+} \frac{2}{+} \frac{2}{+} \text{ III}$

$\text{II} \cap \text{III} = \emptyset$

ب)

$\Delta > 0$

$S < 0 \Rightarrow \frac{2m+2}{m-2} < 0 \Rightarrow \frac{-1}{+} \frac{2}{-} \frac{2}{+} \frac{2}{+} \text{ II}$

$P < 0 \Rightarrow \frac{1}{m-2} < 0 \Rightarrow \frac{1}{-} \frac{2}{+} \frac{2}{+} \frac{2}{+} \text{ III}$

$\text{II} \cap \text{III} = (-1, 2)$

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الف) $y = (m-2)x^2 - 2(m+1)x + 1 = 0$

$\Delta > 0$

$P < 0 \Rightarrow \frac{1}{m-2} < 0 \Rightarrow \frac{1}{-} \frac{2}{+} \frac{2}{+} \frac{2}{+} \text{ II}$

$m \in (-\infty, 2)$

ب) $x_s = \frac{-b}{2a} = -2 \Rightarrow$

$\frac{2m+2}{2m-2} = -2 \Rightarrow 2m+2 = -4m+4$

$6m = 2 \Rightarrow m = \frac{1}{3}$

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$y = \frac{2x^2}{3} - (2\sin\alpha)x + \frac{3}{4} = 0$

$\Delta > 0 \Rightarrow 4\sin^2\alpha - 4 > 0 \Rightarrow \sin^2\alpha - 1 > 0 \Rightarrow \sin^2\alpha - 1 = 0 \Rightarrow \sin\alpha = \pm 1$

$\sin\alpha = 1 \Rightarrow \frac{2}{3}x^2 - 2x + \frac{3}{4} = 0 \xrightarrow{\times 12} 8x^2 - 12x + 9 = (2x-3)^2 \Rightarrow x = \frac{3}{2} \checkmark$

$\sin\alpha = -1 \Rightarrow \frac{2}{3}x^2 + 2x + \frac{3}{4} = 0 \xrightarrow{\times 12} 8x^2 + 12x + 9 = (2x+3)^2 \Rightarrow x = -\frac{3}{2} \checkmark$

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$$y = \frac{(2x^2 - 2x - 1)(2x^2 - 3x - 5)}{1 - x^2}$$

$$D = R - \{-1\}$$

$$y = \frac{(2x+1)(x-1)(x+1)(2x-5)}{(1-x)(1+x)} = (-2x-1)(2x-5) = -4x^2 + 12x + 5$$

$$y_{\max} = -\frac{\Delta}{\epsilon} = \frac{-289}{-4} = 72.25$$

$$y = mx^2 - (m+2)x - 2 = 0$$

$$3S - V = \Delta P$$

$$S = \frac{b}{a} = \frac{m+2}{m}$$

$$P = \frac{c}{a} = \frac{-2}{m}$$

$$\frac{3m+4-Vm}{m} = \frac{-1}{m} \Rightarrow 3m+4-Vm = -1 \Rightarrow -\epsilon m + 14 = 0 \Rightarrow m = \epsilon$$

$$y = \epsilon x^2 - 4x - 2 \xrightarrow{x^2 + \frac{b^2}{S^2 - 2P}} \left(\frac{x}{\epsilon}\right)^2 - 2\left(-\frac{1}{\epsilon}\right) = \frac{9}{\epsilon} + 1 = \frac{12}{\epsilon}$$

$$y = x^2 - 5x + 2 = 0$$

$$\frac{\epsilon \alpha + \beta \Delta}{\Delta \beta^2} =$$

$$\beta^2 = S\beta - P \xrightarrow{\times \beta} \beta^3 = S\beta^2 - P\beta = S(S\beta - P) - P\beta \xrightarrow{\times \beta} \beta^4 = S(S\beta - P)\beta - (S^2\beta - 2SP^2) \xrightarrow{A}$$

$$\beta^4 = ((S^2 - 2SP^2 + P^2)\beta) - (S^3\beta - 2SP^2) \xrightarrow{A}$$

$$\alpha = S - \beta \Rightarrow \epsilon \alpha = \epsilon S - \epsilon \beta \quad \Delta \beta^2 = \Delta(S\beta - P)$$

$$\frac{\epsilon S - \epsilon \beta + A}{\Delta(S\beta - P)} = \frac{9\epsilon\beta - 31}{\Delta\beta - 2} = \frac{19(\Delta\beta - 2)}{\Delta\beta - 2} = 19$$

$$\alpha\beta = 2$$

$$\beta = \frac{2}{\alpha}$$

در سر این سوال نابود شد. فقط راه حل دیدم که رانت تریا و وجود راه بلیه * **مفید به** **بیت نوشتم**

$$y_1 = ax^2 + bx + c$$

$$y_2 = 2x + 1$$

$$x = 2 \Rightarrow 1\epsilon = \epsilon a + 2b + \epsilon \Rightarrow (\epsilon a + 2b = 1) \times 2 \rightarrow 12a + 6b = 3$$

$$x = -2 \Rightarrow \epsilon = 9a - 3b + \epsilon \Rightarrow (9a - 3b = 0) \times 2 \rightarrow 11a - 4b = 0$$

$$y_1 = x^2 + 2x + c \xrightarrow{x_3 = -\frac{b}{2a} = \frac{-2}{2}} \quad \checkmark$$

$$2 \cdot a = 3 \Rightarrow a = 1.5$$

$$b = 3 \quad \checkmark$$

$$y = 2x^2 + (m+1)x + m + 4 = 0 \Rightarrow 2x^2 + mx + m + 4 = 0 \quad \Delta = 0$$

$$m^2 - 8m - 48 = 0 \Rightarrow (m - 12)(m + 4) = 0 \Rightarrow m = 12 \text{ یا } -4 \quad \checkmark$$

در تقسیم ناچیز سوم است قبول نیست X

$$\text{Conclusion: } \frac{r_\alpha}{\Delta \beta^r} + \frac{\beta^a}{\Delta \beta^r} = \frac{r_\alpha}{\Delta \beta^r} + \frac{\beta^r}{\Delta}$$

$$P = \alpha \beta = r \rightarrow \beta = \frac{r}{\alpha}$$

$$\frac{r_\alpha}{\Delta \left(\frac{r}{\alpha}\right)^r} + \frac{\beta^r}{\Delta} = \frac{\alpha^r + \beta^r}{\Delta} = \frac{S^r - rSP}{\Delta} = 19$$