

Date

Subject

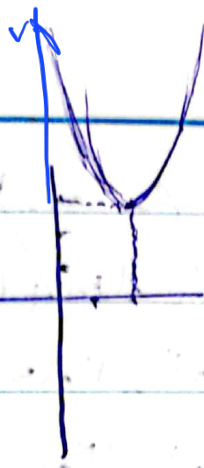
عارف حاجی حیدری

(الف)

$$x^2 - 2x + 7$$

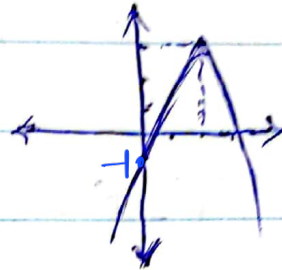
$$x_s = \frac{-b}{2a} = \frac{2}{2} = 1$$

$$x=1 \Rightarrow 1 - 2 + 7 = 6$$



$$y = -x^2 + 2x - 1$$

$$x_s = \frac{-1}{-2} = \frac{1}{2} \rightarrow y_s = -\left(\frac{1}{2}\right)^2 + 2\left(\frac{1}{2}\right) - 1 = -\frac{1}{4} + 1 - 1 = -\frac{1}{4}$$



(الف) : درجه‌های

$$\Delta = 0 \Rightarrow (m+1)^2 - 5m + 1 = 0$$

$$m^2 + 2m + 1 - 5m + 1 = 0$$

$$m^2 - 3m + 2 = 0$$

$$(m-1)(m-2) = 0$$

$$m = 1 \text{ و } m = 2$$

$$-2 < m < 4$$

(ب) یک درجه‌های

$$\Delta = 0 \Rightarrow (m+1)^2 - 5m + 1 = 0$$

$$(m+1)^2 - 5m + 1 = 0$$

$$m^2 - 3m + 2 = 0$$

$$m = -2 \text{ و } m = 4$$

(ج) درجه‌های

$$\Delta < 0 \Rightarrow m^2 - 3m + 2 < 0$$

$$\frac{-3}{2} < m < 2$$

$$-2 < m < 4$$

(د) درجه‌های

$$m < -2$$

$$m < -2$$

$$-2 < m < 4$$

$$\Delta \geq 0 \Rightarrow m^2 - 3m + 2 \geq 0$$

$$\frac{-3}{2} < m < 2$$

الف) $\Delta > 0 \rightarrow \frac{c}{a} > 0 \rightarrow -\frac{b}{a} < 0$

ا) $s < 0 \rightarrow \text{center} \cap P_4 \rightarrow m > r \rightarrow \{ \emptyset \}$

ب) $P_4 \rightarrow m < r$
 $s < 0 \rightarrow \text{center} \rightarrow -1 < m < 1$

الف) $\Delta > 0 \checkmark$
 $P_4 \rightarrow m < r$

ب) $\frac{-b}{\pm a} = -1 \rightarrow m = 1$

$F_a = x^2 - a + r$

$\frac{F_a + B^0}{AB^r} = \frac{x^2 - a + r + AB^r r}{rAB - r}$

$B^0 = AB^r + r$

$\frac{5 - r_{sp}}{a} = 19$

$AB^r = rAB - r$

$y_1 = ax^2 + bx + c \xrightarrow{c=r} y = ax^2 + bx + r$

$a=1, b=r \rightarrow x = -\frac{r}{2}$

$\rightarrow y_1 = r^2 + 1 \rightarrow r = 1 \rightarrow y_1 = 1^2 \rightarrow (1, 1)$

$\rightarrow r = -1 \rightarrow y_1 = 1 \rightarrow (-1, 1)$

$(1, 1)$

$ra + rb + r = 1^2 \Rightarrow \begin{cases} ra + rb = 0 \\ 1ra + 1rb = 1 \end{cases}$

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$\Rightarrow 1a = 1$
 $a = \frac{1}{1} = 1$

$y_1 = \frac{1}{1}x^2 - \frac{1}{1}x + 1$

$\Rightarrow x = -\frac{b}{2a} = -\frac{-1}{2 \cdot 1} = \frac{1}{2}$
 $b = -\frac{1}{2} = -\frac{1}{2}$

$$[r] \Rightarrow P r^2 + (m+1)r + (m+q) = r$$

$$P r^2 + m r + r - r + m + q = 0$$

$$P r^2 + m r + m + q$$

$$\Delta = 0 \rightarrow m = +1r, -r$$