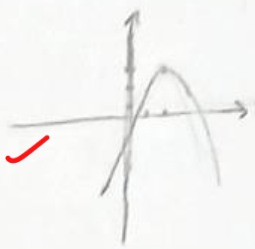


الف) $y = x^2 - 4x + 7$ $S \mid \frac{-b}{2a} = \frac{4}{2} = 2$ 	ب) $y = -x^2 + 4x - 1$ $S \mid \frac{-b}{2a} = \frac{-4}{-2} = 2$ 	۲
الف) $\Delta > 0 \Rightarrow b^2 - 4ac > 0 \Rightarrow m^2 - 2m - 15 > 0$ $(m-5)(m+3) > 0$ $m = (-\infty, -3) \cup (5, +\infty)$ $\frac{-3}{+} \quad \frac{5}{+}$	ب) $\Delta = 0 \Rightarrow b^2 - 4ac = 0 \Rightarrow m^2 - 2m - 15 = 0$ $m^2 + 2m + 1 - 4m - 15 = 0 \Rightarrow m^2 - 2m - 14 = 0$ $(m-5)(m+3) = 0 \Rightarrow m = 5$ $m = -3$	۲
ب) $\Delta < 0 \Rightarrow b^2 - 4ac < 0 \Rightarrow m^2 - 2m - 15 < 0$ $(m-5)(m+3) < 0$ $\frac{-3}{+} \quad \frac{5}{+}$ $-3 < m < 5$	د) $\Delta > 0 \Rightarrow b^2 - 4ac > 0 \Rightarrow m^2 - 2m - 15 > 0$ $(m-5)(m+3) > 0$ $m = (-\infty, -3) \cup (5, +\infty)$ $\frac{-3}{+} \quad \frac{5}{+}$	۲
الف) $S < 0, P > 0, \Delta > 0 \mid m \in \emptyset$ باقی بماند $\Rightarrow S < 0 \Rightarrow -4m < 0$ (ب) $\Delta > 0 \Rightarrow m^2 - 2m - 15 > 0$ $p > 0 \Rightarrow \frac{1}{m-2} > 0 \Rightarrow m < 2$	ب) $P < 0, S < 0, \Delta > 0 \mid -1 < m < 2$ $S: \frac{2m+2}{m-2} < 0 \Rightarrow \frac{2}{m-2} < 0 \Rightarrow m < 2$ $P: \frac{1}{m-2} < 0 \Rightarrow \frac{1}{m-2} < 0 \Rightarrow m < 2$ $\Delta: m^2 - 2m - 15 > 0 \Rightarrow m < -3$	۲
الف) $P < 0, \Delta > 0$ $P < 0 \Rightarrow \frac{1}{m-2} < 0 \Rightarrow m < 2$ $\Delta > 0 \Rightarrow m^2 - 2m - 15 > 0 \Rightarrow m < -3$ (I) $\cap$ (II) $\Rightarrow m < -3$	ب) $\frac{-b}{2a} = -2 \Rightarrow \frac{2m+2}{2m-4} = -2$ $2m+2 = -4m+4$ $6m = 2$ $m = \frac{1}{3}$	۲
$\frac{2m^2}{3} - (2\sin\alpha)m + \frac{5}{3} = 0 \mid \Delta \geq 0$ $4\sin^2\alpha - 4(\frac{5}{3} \times \frac{1}{3}) \geq 0$ $\sin^2\alpha - 1 \geq 0$ $\sin^2\alpha \geq 1 \Rightarrow \sin\alpha \leq -1, \sin\alpha \geq 1$	$\sin\alpha = 1 \Rightarrow \frac{2}{3}m^2 - 2m + \frac{5}{3} = 0$ $2m^2 - 4m + 5 = 0 \mid \Delta < 0$ $\sin\alpha = -1 \Rightarrow \frac{2}{3}m^2 + 2m + \frac{5}{3} = 0$ $2m^2 + 4m + 5 = 0 \Rightarrow \Delta < 0$ $\frac{-b}{2a} = \frac{-2}{2(\frac{2}{3})} = \frac{3}{2}$	۲

$$y = \frac{(r_n^2 - r_{n-1})(r_n^2 - r_{n-1} - 5)}{1 - r^2} = \frac{(n-1)(r_{n+1})(n+1)(r_n - 5)}{1 - r^2} = \frac{-(1-r^2)(4n^2 - 11n - 5)}{1 - r^2}$$

(2)

6

$$y = -4n^2 + 11n + 5 \leadsto \text{max} \begin{cases} \frac{-b}{2a} = \frac{-11}{-8} = \frac{11}{8} \\ \frac{-\Delta}{4a} = \frac{-289}{-32} = \frac{289}{32} \end{cases} \checkmark$$

$$3S = 2p + v \Rightarrow r\left(\frac{n+2}{m}\right) = d\left(\frac{2}{m}\right) + v \Rightarrow \frac{r_{m+2}}{m} = \frac{-1}{m} + v$$

(1, 2, 4)

$$\frac{r_{m+2} + 1}{m} = v \Rightarrow r_{m+2} = vm$$

$$12 = 4m \Rightarrow m = 3$$

$$\alpha^r + \beta^r = S^r - rp = \frac{13}{4}$$

خواسته سوال :

✓

$$\begin{aligned} n^2 - 2n + 2 &= 0 & \beta^r &= \alpha\beta - 2 & \alpha + \beta &= 5 \rightarrow \alpha = 5 - \beta \\ S &= 5, p = 2 & \beta^r &= \beta(\alpha\beta - 2) = \alpha\beta^2 - 2\beta = 5(\alpha\beta - 2) - 2\beta = 2\alpha\beta - 12 \end{aligned}$$

(2)

(1) ?

$$\beta^r = \alpha\beta^r - 2\beta^r \xrightarrow{\text{تقسیم بر } \beta^r} 1 = \alpha - \frac{2}{\beta} \Rightarrow \alpha = 1 + \frac{2}{\beta}$$

$$\frac{2 - 4\beta + 4\sqrt{9}\beta - 12}{5(\alpha\beta - 2)} = \frac{4\sqrt{9}\beta - 10}{2\alpha\beta - 6} = \frac{12(2\alpha\beta - 6)}{2\alpha\beta - 6} = 12 \checkmark$$

$$\begin{aligned} n=2 &\Rightarrow \begin{cases} f = fa + 2b + c \\ f = 9a - 2b + c \end{cases} \xrightarrow{c=f} \begin{cases} 10 = fa + 2b \\ 0 = 9a - 4b \end{cases} \xrightarrow{x^f} \begin{cases} r_0 = 12a + 4b \\ 0 = 11a - 4b \end{cases} \\ n=-2 &\Rightarrow \begin{cases} f = 9a - 2b + c \end{cases} \end{aligned}$$

(2)

$$y = n^2 + 2n + 2$$

$$\begin{aligned} r_0 &= 10a \\ a &= 1, b = 3, c = 1^f \end{aligned}$$

✓

$$\text{نسبت } \frac{-b}{2a} = \frac{-2}{2} = -1 \checkmark$$

$$y = 2n^2 + (m+1)n + m + 4$$

$$y = n$$

$$2n^2 + (m+1)n + m + 4 = n$$

$$2n^2 + (m)n + m + 4 = 0$$

$$\Delta = 0 \leadsto m^2 - 4(m+4) = 0 \Rightarrow m^2 - 4m - 16 = 0$$

$$(m-12)(m+4) = 0 \Rightarrow m = 12 \text{ یا } m = -4$$

در اول 12 است غنن

نصیحه اول ✓

نصیحه

(1, 16)

10 ✓