

دوم دختر B

تعیین ضرایب ۱۹، ۷۵

کتابخانه

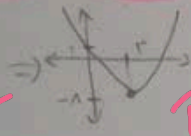
الف) $S \mid \begin{cases} x_S = \frac{-b}{r} = \frac{r}{r} = 1 \\ y_S = -r - r + 1 = -1 \end{cases}$

$\Rightarrow S \mid \begin{matrix} 1 \\ -1 \\ \text{ent} \end{matrix} \left(\begin{matrix} 1 \\ 1 \\ -1 \end{matrix} \right)$

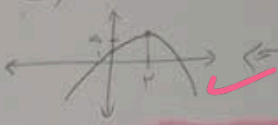
ب) $S \mid \begin{cases} x_S = \frac{-r}{r} = \frac{r}{r} \\ y_S = -rx + \frac{r}{r} - a = \frac{-r(1-a)}{r} \end{cases}$

$a < 0 \Rightarrow \text{maximum} \left(\frac{r}{r} > \frac{r}{r} \right)$

الف) $y = ax^2 - 4a + 1 \rightarrow x_S = \frac{4}{r} = 1^m$
 $y_S = 9 - 1 + 1 = 9$
 $a > 0 \Rightarrow U$



ب) $y = -ax^2 + 4ax + 1 \rightarrow a < 0 \Rightarrow \cap$
 $x_S = \frac{-4a}{-2a} = 2$
 $y_S = -4 + 8 + 1 = 5$



$kx^2 + km^2 - 4m - r = 0 \rightarrow x + \beta = 1, \alpha\beta = -r \Rightarrow \alpha, \beta, \gamma \Rightarrow \alpha + \beta + \gamma = \frac{-b}{a} = \frac{-k}{k} = -1$
 $am^2 + bm^2 + cm + d = 0 \rightarrow \frac{a}{r} = \frac{-d}{a} = \frac{\alpha\beta\gamma}{-r} = \frac{1}{r} \Rightarrow \gamma = \frac{1}{r} \Rightarrow \frac{\alpha + \beta + \gamma}{1} = \frac{-k}{m} = \frac{r}{m}$

$ax^2 - rmx + m = 0 \rightarrow \sqrt{x} - \sqrt{\beta} = 1 \Rightarrow \alpha + \beta - r\sqrt{\alpha\beta} = 1 \Rightarrow rm - r\sqrt{m} - 1 = 0$
 $rm^2 - rm - m = 0 \Rightarrow rm^2 - m - 1 = 0 \Rightarrow S = \frac{1}{r}, P = \frac{1}{r}$

$\Delta = (m+r)^2 - 4m \rightarrow (m-r)^2 = m^2 - km + k \Rightarrow \frac{m-r}{r} = \frac{\sqrt{\Delta}}{r} = |r-m|$
 $\frac{m}{r} = \frac{|m-r|}{r} \Rightarrow |m| |m-r| = r^2$

$y = x^2 - mx + 1 \rightarrow \frac{-b}{2a} = \frac{m}{2} = \frac{1}{2} \leq \frac{1}{2}$

$a > 0 \rightarrow \text{min} \Rightarrow y_S = \frac{-\Delta}{4a} = \frac{-(-4 - 4ar)}{4a} = \frac{4 + 4ar}{4a} = \frac{1 + ar}{a} = \frac{1}{a} + r$
 $ra = r^2a - vr \Rightarrow r^2a^2 - r^2a - vr = 0 \Rightarrow \Delta = r^4 - 4vr = 0 \Rightarrow (a-1)(a-1) = 0 \Rightarrow a = 1$

$ax^2 - (a+1)x + a = 0 \rightarrow \alpha, \beta = m, m+r \rightarrow m(m+r) = a \rightarrow S = m+r = a+1$
 $ax^2 - (a+1)x + b = 0 \rightarrow \alpha, \beta = y, y+r \rightarrow y(y+r) = b \rightarrow S = y+r = \frac{b+1}{1} \Rightarrow y_1 = 1, y_2 = 1$

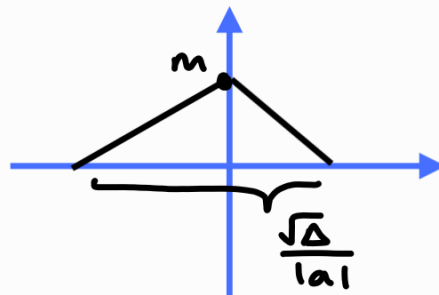
$b-a = r^2 - r^2 = (r)^2 \Rightarrow y_1 y_2 = r^2 = b$

$y = -ax^2 + ax + r \rightarrow x_S = \frac{-a}{-2a} = \frac{1}{2} \Rightarrow y = \frac{1}{4}a + \frac{1}{2}a + r = \frac{3}{4}a + r$
 $y = r^2m^2 - bm - 1 \rightarrow r^2 \frac{1}{4} - b - 1 = -1 \Rightarrow \frac{r^2}{4} - b = 0 \Rightarrow a = -1r$
 $S = \frac{1}{r} \Rightarrow y_S = \frac{1}{r^2} - b - 1 = -1 - \frac{b}{r} \Rightarrow -a \left(\frac{1}{r} \right)^2 + \frac{1}{2}a + r = \frac{a}{r} - 1r = \frac{a}{r} - r = -1 - \frac{b}{r}$
 $b-a = -4r^2 = -4$

$y = ra^2 + ka + \beta \Rightarrow P = \frac{\beta}{ra}, S = \frac{-k}{ra} \Rightarrow \beta = ra\alpha^2 \Rightarrow ra\alpha^2 = 1 \Rightarrow \alpha = \pm \frac{1}{\sqrt{a}}$
 $x_S = \frac{-b}{2a} = \frac{-r}{2a} = \frac{r}{2a}$
 $y_S = \frac{9}{a} \Rightarrow x_S = \frac{-r}{-2a} = \frac{r}{2a} \Rightarrow \beta = 1 \Rightarrow \alpha = \frac{1}{\sqrt{a}}$

$a^r + b^r - 1r = b + a \Rightarrow a^r + b^r = (a+b)^r - rab$
 $a + b - 1 = ab$
 $(a+b)^r - rab - 1r = a + b \Rightarrow (a+b)^r - (a+b-1) - 1r = a + b$
 $S^r - r(S-1) - 1r = S$

$$S = \frac{1}{r} \times m \times \sqrt{m^2 + r^2 - 2rm} = \left| \frac{r}{r} \right|$$



$$m|m-r| = |r| \rightarrow \begin{cases} m|m-r| = r & \text{1} \\ m|m-r| = -r & \text{2} \end{cases}$$

1 $m \geq r \rightarrow m^2 - 2rm - r^2 = 0 \rightarrow m = r$ if $m < r \rightarrow \Delta < 0$ غَيْرَ

$\hookrightarrow m = -1$

2 $m \leq r \rightarrow -m^2 + 2rm + r^2 = 0 \rightarrow m = -1$ if $m > r \rightarrow \Delta < 0$ غَيْرَ

$\hookrightarrow m = r$

$$m = r \rightarrow y = m^2 + r^2 m + r \rightarrow \text{NS} = -\frac{r}{r}$$

$$m = -1 \rightarrow y = m^2 - m + r \rightarrow \text{NS} = -\frac{1}{r}$$