

۱۹۱۵ آفرین

الف)  $x+2y = -4$   
 $3x - y = 9$

$\begin{cases} x+2y = -4 \\ 4x-2y = 18 \end{cases}$   $\xrightarrow{\text{بازسازی}}$   $\frac{5x}{5} = 14 \rightarrow x=2$   $\rightarrow y = -1$

$\frac{x}{y} = \frac{-4}{2} = -2$

ب)  $\left(\frac{1}{x} - \frac{1}{y} = -1\right)$   $\frac{x-1}{x} - \frac{y-1}{y} = -1$   $\frac{x-1}{x} - \frac{y-1}{y} = -1$   
 $1 - \frac{1}{x} = -1 - \frac{1}{y} = -1 \rightarrow -\frac{1}{y} = 1 \rightarrow y = -1$

$\frac{-1}{x} + \frac{1}{-1} = -1$   $\frac{-1}{x} - 1 = -1$   $\frac{-1}{x} = 0$   $x = -\frac{1}{0}$

$a \rightarrow -3$   
 $2a \rightarrow -4$

$f(a) + 2f(2) = 3f(1)$   
 $-4 + 2b = -4 \rightarrow 2b = 0 \rightarrow b = 0$

$m^2 - 3m = -2 \rightarrow m^2 - 3m + 2 = 0 \rightarrow (m-1)(m-2) = 0$

$m=1$  غلط  
 $m=2$  غلط

هیچ مقدار  $m$

خط عمود (موازی با محورها) می کشیم و مرکز در یک نقطه با هم قطع می شود.

الف)  $\sqrt{x+1}$   $\times$   $\sqrt{x+1}$   $\times$   $\sqrt{x+1}$

الف)  $y = -\sqrt{x+1}$   $y_1 = -\sqrt{x+1}$   $y_2 = -\sqrt{x+1}$   $\rightarrow y_1 = y_2$  تابع هست

ب)  $x = \frac{y}{\sqrt{1-y^2}}$   $x=1 \rightarrow y = \sqrt{1-y^2} \rightarrow y^2 = 1-y^2 \rightarrow 2y^2 = 1 \rightarrow y^2 = \frac{1}{2} \rightarrow y = \pm \frac{1}{\sqrt{2}}$

به ازای  $y = -\frac{\sqrt{2}}{2}$  عبارت برابر ۱- می شود!

الف)  $|y| = n \xrightarrow{n=1} 1 = |y| \rightarrow y = \pm 1 \rightarrow$  تابع

ب)  $y^m + m y^{m-1} + m y + n = 0$

$(y+1)^m - 1 \quad (y+1)^m = -n^m - n + 1 \rightarrow (y+1)^m = (y+1)^m$  تابع

$f(\sqrt{x}-r) = \frac{(\sqrt{x}-r)^m + f(\sqrt{x}-r) + a}{(\sqrt{x}-r)^m + f(\sqrt{x}-r) + v} = \frac{\cancel{r^m} + \cancel{f} - \cancel{f} + \cancel{f} - \cancel{a} + a}{\cancel{r^m} + \cancel{f} - \cancel{f} + \cancel{f} - \cancel{a} + v} = \frac{f-a}{-a} = \frac{f}{-a}$

$\frac{f}{-a} = \frac{r^m}{-a}$

$\begin{cases} -1 \\ -r \end{cases} \quad \begin{aligned} -f - r^m(-1) + a &= 0 \\ -f + r^m + a &= 0 \\ -1 + a &= 0 \rightarrow a = 1 \end{aligned}$

$\begin{aligned} -f &= -1 - a + b \\ -f &= -1 - 1 + b \rightarrow b = -r \end{aligned}$

$\begin{aligned} y - r^{m+1} &= 0 \\ y &= r^{m+1} \end{aligned}$

$\begin{aligned} x^m + m - r &= r^{m+1} \\ x^m - r^{m+1} - 1 &= 0 \end{aligned}$

$\frac{1 \pm \sqrt{a}}{r} \quad \frac{1 \pm \sqrt{a}}{r} \quad \leftarrow 1 - f(1-r) = a$

$a + b = ra$

$a - rb + 1 = a + b$

$-rb = -1 \rightarrow b = \frac{1}{r}$

$\frac{f n^m - a n + c + 1}{b n + r} = n$

$b n^m + r n = f n^m - a n + c + 1$

$b = f$

$-a = r$

$a = -r$

$c = -1$

$a + b + c = 0$

$$x = \frac{y}{\sqrt{1-y^2}} \rightarrow \frac{y_1}{\sqrt{1-y_1^2}} = \frac{y_2}{\sqrt{1-y_2^2}} \rightarrow \frac{y_1^2}{1-y_1^2} = \frac{y_2^2}{1-y_2^2} \quad \underline{5}$$

$$\leadsto y_1^2 - \cancel{y_1^2 y_2^2} = y_2^2 - \cancel{y_1^2 y_2^2} \xrightarrow[\text{هم علامت}]{y_1, y_2} y_1 = y_2 \rightarrow \checkmark \text{ راجعاً تا برهیت}$$